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To be added in final report



A VISION FOR ARLINGTON

Arlington envisions a physical environment that strengthens existing connections, encourages social interaction, and fosters a sense of community. The Town envisions:

- Open spaces that connect us
- Corridors that link neighborhoods
- Thriving, interconnected business districts



1. INTRODUCTION

A. PUBLIC PARTICIPATION

We haven't written this section yet.

B. KEY FINDINGS

- Arlington's beauty is influenced by many factors: its varied landscape and topography, the presence of water resources, and its historic architecture. In addition, Arlington's distinctive street trees and urban woodlands play a critical role in the town's appearance, walkability, and environmental health. Increased investments in tree maintenance and replacement, including enough personnel to carry out a comprehensive tree and streetscape management program, will be important for Arlington's future quality of life.
- Arlington has many unique neighborhoods, each with recognizable features in topography, housing typology, and streetscape characteristics. Neighborhoods tend to be identified in terms of their physical and cultural relationship with Massachusetts Avenue. As the quintessential "Main Street" of Arlington, Massachusetts Avenue serves many neighborhoods along its length with civic amenities, local businesses, and transportation.
- Massachusetts Avenue has the capacity for growth. It can support mixed-use development commensurate with its function as Arlington's primary commercial corridor. Massachusetts Avenue is accessible to neighborhoods throughout the town, it has frequent bus service, bicycle routes, and good walkability. Increased density through greater building heights and massing would benefit the corridor from an urban design perspective and benefit the town from a fiscal perspective.
- Arlington has a limited number of vacant, developable land parcels, e.g., at Poet's Corner on Route 2, and the large properties next to Thorndike Field and Alewife Brook. The conservation and development opportunities on these and other sites matter, but Arlington's growth management priorities must be Massachusetts Avenue, Broadway, and the Mill Brook area. Addressing

Arlington's critical environmental challenges will hinge, in part, on the policies it adopts to guide and regulate future development in these locations.

- The Mill Brook is a hidden gem. It has the potential to spawn transformative change along Massachusetts Avenue west of the center of town. Nearby properties are poised for redevelopment due to their current use, age, and ownership, their location adjacent to the waterway, and their proximity to the Minuteman Bikeway and Massachusetts Avenue.
- Arlington's historic civic spaces are beloved community institutions that serve as both visual landmarks and cultural gathering spaces. Preserving them is a local priority, and overall, Arlington has been a good steward of its historic assets. Still, the Town has unmet preservation needs. There are historic properties without any protection, and several historic sites and buildings need long-term maintenance programs.
- Arlington has done more than many Massachusetts communities to promote sustainability. Its early adoption of a climate action plan, its designation by the Massachusetts Green Communities Program, and impressive storm water awareness programs all suggest a strong sense of environmental stewardship.
- Compared with many towns around Boston, Arlington has been successful at creating affordable housing. Through inclusionary zoning and directing federal grant funds to the Housing Corporation of Arlington (HCA), the Town has created over 140 low- or moderate-income housing units since 2000. However, despite efforts by the Town, the HCA, and the Arlington Housing Authority (AHA), Arlington has lost some of its traditional affordability. Pressure for housing close to Boston and Cambridge has triggered significant increases in Arlington's property values and home sale prices. Between 2000 and 2012, the median single-family home sale price rose by over 45 percent.
- Arlington's convenient access to employment centers in Boston and Cambridge attracts highly-educated and skilled homebuyers and renters. Thirty-nine percent of its labor force commutes to these two cities alone. Arlington's attractiveness to young, well-educated families bodes well for the vitality of local businesses and the civic life of the town. The same phenomenon helps to explain the dramatic K-12 population growth that has occurred in Arlington at a time that many towns have experienced declining school enrollments.
- Arlington's economy is growing. Seventy new businesses were established between 2008 and 2012, and since 2012, local employment figures have recovered and surpassed pre-recession numbers.
- The Town's two theatres the Capitol Theatre in East Arlington and the Regent Theatre in Arlington Center draw approximately 200,000 patrons per year. According to a study prepared for the Arlington Planning Department, these visitors spend \$2.4 million at the local shops and restaurants around them.
- Arlington has a vibrant local arts community. Several organizations devoted to cultural production and appreciation are located in Arlington, and many self-employed residents work in the fine and performing arts. This creative infrastructure helps makes Arlington's commercial districts interesting places to shop, visit and work, which in turn boosts the utility and value of the commercial properties in them.

- Arlington's road network consists of 125 miles of roadway, including 102 miles under the Town's jurisdiction. The network is well-connected and multimodal, with many sidewalks, several bicycle routes and pathways, and transit options, though the latter is mostly concentrated along the Massachusetts Avenue corridor.
- Due to significant traffic congestion, Arlington can be a difficult place to navigate during peak period commutes and school pick-up and drop-off times. The congestion occurs on north-south cross-streets including Pleasant Street, Jason Street, Park Avenue, Highland Avenue, Mill Street, and Lake Street, in part due to motorists accessing major routes such as Route 2 and Route 2A. In addition, congestion often occurs on Mill Street and Lake Street near their intersections with the Minuteman Bikeway.
- Arlington is a well-run, fiscally responsible town. Over the past twenty years, its average annual rate of expenditure growth has been about average or slightly below that of most of the neighboring towns and cities in its peer group. In addition, the Town has made cautious borrowing decisions and through prudent financial management, Arlington has earned a triple-A bond rating. Still, the Town has been challenged to keep pace with rising costs of community services. Over the past ten years (2003-2013), Arlington has had to reduce its municipal workforce by approximately 14 percent.
- Arlington spends slightly less per capita (\$3,371) on local government services than the median for its peer group (\$3,625). In Arlington, there are 1.8 Full-Time Equivalent (FTE) positions per 1,000 residents, but the Northeast U.S. average is 2.15 FTE per 1,000 residents. Commercial and industrial taxes make up a much smaller percentage of the tax base in Arlington (6.3 percent) than most of the towns in its peer group.
- Arlington High School's accreditation may be at risk unless the Town addresses facility deficiencies identified in a recent accreditation review. There is also a need for improvements to the Stratton elementary school. In fact, Arlington faces demands for several "big ticket item" capital projects in the next few years, not only at the schools.
- Arlington has very little publicly-owned land. The high school, cemetery, Public Works Department and Recreation Department will have difficulty meeting future needs because there is virtually no land for expansion. Some already face capacity problems.

C. GOALS AND POLICIES

Land Use

- Balance housing growth with other land uses that support residential services and amenities.
- Encourage development that enhances the quality of Arlington's natural resources and built environment.
- Attract development that supports and expands the economic, cultural, and civic purposes of Arlington's commercial areas.

Transportation

- Enhance mobility and increase safety by maximizing transit, bicycle, and pedestrian access and other alternative modes of transportation.
- Manage congestion safely and efficiently by improving traffic operations.
- Manage the supply of parking in commercial areas in order to support Arlington businesses.

Housing

- Encourage mixed-use development that includes affordable housing, primarily in well-established commercial areas.
- Provide a variety of housing options for a range of incomes, ages, family sizes, and needs.
- Preserve the "streetcar suburb" character of Arlington's residential neighborhoods.
- Encourage sustainable construction and renovation of new and existing structures.

Economic Development

- Improve access to public transit and parking.
- Support conditions that benefit small, independent businesses.
- Maximize the buildout potential of commercial and industrial properties.
- Promote Arlington's historic and cultural assets as leverage for economic development.

Historic & Cultural Resources

- Maintain, protect, preserve, and promote historic and diverse cultural resources in all neighborhoods.
- Provide attractive, well-maintained spaces for residents to meet, play and grow.
- Promote arts and cultural activities for all ages.

Natural Resources

- Use sustainable planning and engineering approaches to improve air and water quality, reduce flooding, and enhance ecological diversity by managing our natural resources.
- Mitigate and adapt to climate change.
- Ensure that Arlington's neighborhoods, commercial areas, and infrastructure are developed in harmony with natural resource concerns.
- Value and protect the physical beauty and natural habitats of Arlington.

Open Space & Recreation

Treasure our open spaces, parks, recreational facilities and natural areas.

- Expand recreational and athletic facilities, programs, and opportunities, for all residents.
- Maintain and beautify our public parks, trails, play areas, and streetscapes.

Public Facilities & Services

- Coordinate and efficiently deliver town services.
- Build, operate, and maintain public facilities that are attractive and help to minimize environmental impact and that connect Arlington as a community.
- Balance the need for additional revenue with ability and willingness of property owners to pay for new expenditures and investments
- Guide public facility investments through a long-term capital planning process that anticipates future needs.

D. KEY RECOMMENDATIONS

Land Use

1) Recodify and update the Zoning Bylaw (ZBL).

The current ZBL includes nineteen separate zoning districts, including six unique business and one industrial zone. The text of the ZBL is not always clear, and some of the language is out of date and often inconsistent. As a "first step" in any zoning revisions following a new master plan or major update of an existing plan, communities should focus on instituting a good regulatory foundation: structure, format, ease of navigation, updated language and definitions, and statutory and case law consistency. To illustrate issues with Arlington's present zoning, the Town requires a special permit for churches, schools, and day care centers, yet state law specifically exempts these uses from the special permit process.

2) Reduce the number of uses that require a special permit.

Excessive special permit zoning can create land use conflicts and hinder successful planning initiatives. Special permits are a discretionary approval process; the board with authority to grant or deny has considerable power, and unless that power is flagrantly abused, the board's decision will generally be upheld. Developers yearn for predictability. If the Town wants to encourage certain outcomes that are consistent with this Master Plan, special permits should be replaced with by-right zoning, subject to performance standards and conditions, wherever possible.

3) Reorganize and consolidate the business zoning districts on Massachusetts Avenue.

The six zoning districts (B1, B2, B2A, B3, B4, B5) along the length of Massachusetts Avenue are interspersed with six residential zoning districts. Addressing continuity of development and the cohesion of the streetscape, as well as density of development, is difficult. It appears that in some cases, parcels may have been placed in a particular district in order to shield them from becoming non-conforming uses (or to protect the buildings from becoming non-conforming structures). While there is nothing inherently wrong with having several business districts, it is sometimes

difficult to connect the zoning on a given site with the district's stated purposes in the ZBL. As part of updating and recodifying the ZBL, the Town should consider options for consolidating some of the business districts.

4) Provide redevelopment incentives in all or selected portions of the business districts on Massachusetts Avenue, Broadway, and Medford Street

Arlington needs to unlock the development potential of business-zoned land, especially around the center of town. Increasing the maximum building height and lot coverage, and instituting mechanisms to reduce or waive off-street parking requirements would go a long way toward incentivizing redevelopment, as would a clear set of design guidelines. Applicants should be able to anticipate what the Town wants to see in the business districts and plan their projects accordingly.

5) Clarify that mixed-use development is permitted along sections of Massachusetts Avenue.

The B3 Village Business district and B5 Central Business district "encourage" mixed use development, but other business and residential districts along Massachusetts Avenue do not. The ZBL is vague regarding uses that are allowed in mixed-use projects. As part of the recodification and update process, the Table of Use Regulations should be clarified, and the ZBL should have specific standards for design, construction, and operation of a redevelopment project.

Transportation

- 1) Create safer pedestrian and bicycle conditions.
- Consider installing a pedestrian hybrid signal at the intersection of Massachusetts Avenue/Water Street to allow for safe pedestrian crossings across Massachusetts Avenue. If installed, the hybrid beacon should be coordinated with nearby intersections.
- Initiate a complete and safe sidewalks plan for all of Arlington, in coordination with the Safe Routes to School (SRTS) program.
- Identify unsafe pedestrian crossings throughout Arlington, including the intersections of Broadway/Warren and Warren Street between River Street and Broadway, and along the Mystic Valley Parkway. Crossing need to be improved with signals, signage, or modifications to the road design.
- 2) Improve conditions, access, and safety along the Minuteman Bikeway.
- Address ADA requirements for the Bikeway, improved lighting, signalization at street crossings, including raised crossings for the bikeway to give more visibility to pedestrians and bicyclists, and speed control to drivers.
- Make efforts to provide safe connections between the Minuteman Bikeway and commercial centers in East Arlington, Arlington Center, and Arlington Heights. Corridors should be identified and equipped with wayfinding signage to direct path users to and from the path, including a map directory of local businesses along the path.

- Add bicycle parking and access into commercial zoning regulations along the bikeway and in adjacent business districts.
- Review the extension of the regional "Hubway" bikeshare program into Arlington.
- Include bicycle friendly design and technology into all new road projects, such as bicycle detection at intersections, queue jumping, longer signals where needed, and uninterrupted bicycle lanes.
- Bicycle lanes should be added on Massachusetts Avenue from Swan Place to Pond Lane to connect lanes created by the Massachusetts Avenue Rebuild Project and the Arlington Safe Travel Project.
- Provide contra-flow bicycle lanes on high-demand one-way streets, such as Swan Street westbound, Foster Street northbound, and River Street northbound.
- Support a carpooling campaign for those children who are not bussed to school. Continue to support and expand the safe routes to school program to encourage more biking and walking to school.
- 3) Work with the MBTA to reduce bus bunching, and improve the efficiency of bus service, including the provision of queue jump lanes, bus-only lanes, and/or bus stops at curb extensions.
- 4) Address parking issues, especially in the commercial centers.
- Consider a parking study in the East Arlington neighborhood to determine whether there is a parking deficiency and to develop strategies to improve parking management in the area.
- Implement the recommendations in the 2014 Arlington Center parking study, as appropriate, and continue to monitor parking trends in the area to determine if these measures were effective.
- Wayfinding signage for public parking lots is needed, including maps and parking limits to inform customers and improve the visitor's experience. In addition, information on parking areas, regulations, and policies should be provided on the Town's website.
- The Town should review its existing parking policies, including overnight residential street regulations and unregulated residential street parking, and determine strategies to curb non-resident commuters who park on residential roadways. The Town should consider fee-based resident overnight parking for residents that can demonstrate a special need, and daytime resident parking regulations that preclude the use of Arlington streets as parking facilities for out-of-town commuters, such as a resident sticker program.
- Consider assuming more responsibility for private streets to bring them up to the same general condition of public ways.
- Initiate a coordinated study to further extend the Green Line Extension into West Medford, East Arlington, or Arlington Center.

5) Coordinate efforts to reduce traffic congestion

There are several specific locations and times of day where traffic congestion is problematic in Arlington. The morning and evening rush hours and school runs add additional cars and busses

to main arteries and secondary streets alike. In addition key intersections, at the edge of town, become bottlenecks to traffic flow, causing major back-ups, primarily on Massachusetts Avenue and Pleasant Street. Concentrated efforts to relieve congestion should be addressed.

- 6) Work with MassDOT to improve the efficiency of the signal at Massachusetts Avenue/Route 16 in Cambridge, just east of the Arlington Town Line.
- 7) Massachusetts Avenue Corridor and Intersections
- Make improvements to intersections to improve traffic flow in the two-lane section of Massachusetts Avenue. Such improvements may include left-turn pockets at intersections, where justified, and signal coordination.

Housing

1) Create an Affordable Housing Plan (Housing Production Plan) and submit to DHCD for approval under Chapter 40B.

The Town of Arlington's last Housing Needs and Strategy plan was prepared in 2004. The town should review it for current applicability, especially in light of the increase in young families moving to town. A housing production plan should take into consideration the needs of all demographics, including families, elderly, families with special needs, and households with low and moderate incomes. The plan should be prepared with Chapter 40B requirements in consideration, but also made to support housing needs not met by Chapter 40B developments.

2) Work with DHCD and the Town's state representative and senator to determine Arlington's status under the Chapter 40B 1.5 percent land area rule.

Arlington should provide affordable housing in ways that protect neighborhood character, support a diverse population, and meet the needs of low-income households both locally and in the region. These objectives should not conflict with the purposes of Chapter 40B. However, it is very difficult for towns to control land development and protect neighborhood character unless they meet or exceed the Chapter 40B 10 percent minimum. The other statutory option for exerting control is the so-called 1.5 percent land area rule, i.e., whether 1.5 percent of Arlington's total land area is developed for affordable housing. It is very difficult for communities to determine whether they meet the 1.5 percent minimum. Historically, DHCD has declined to provide an opinion unless a developer has appealed a local board's decision to deny a comprehensive permit.

Arlington is working toward the 1.5 percent minimum, but based on available information, it is not clear how much additional land needs to be permitted for affordable housing in order for Arlington to meet the requirement. However, it will probably be easier for Arlington to satisfy the 1.5 percent land area requirement than to reach the 10 percent minimum, given that Arlington has so little vacant land left for new development. The Town should work with its legislators, Citizens Housing and Planning Association (CHAPA), and state officials to develop a process for communities to obtain a 1.5 percent land area determination from DHCD.

- 3) Address the quality and condition of aging housing stock, including financial assistance programs for homeowners and landlords, and zoning options to redevelop and convert older single-family residences located around commercial nodes to multi-unit dwellings.
- Improvements to the structure and aesthetics of one house on a block often spurs further investment on adjacent properties. Arlington should continue to provide housing rehabilitation assistance with its Community Development Block Grant (CDBG) allocation in order to help moderate-income homeowners address substandard housing conditions. Currently the Town provides low-interest loans to address code violations. Eligible homeowners have to satisfy basic credit requirements, have a stable income history, and repay the loan within fifteen years.
 - In addition to its current program, however, Arlington could provide some CDBG assistance as a grant (or deferred payment loan) to very-low-income homeowners with extraordinary or emergency housing needs. Despite Arlington's rising levels of household wealth, it still has a significant number of low- and moderate-income residents. According to the most recent housing affordability data from HUD, almost 19 percent of Arlington's households and 10 percent of its homeowners have low incomes (below 50 percent AMI).
- Changes the Zoning Bylaw to allow accessory apartments in owner-occupied single-family homes in the R0 and R1 districts by special permit and in all other residential districts as of right. Accessory apartments are a remarkably "low impact" strategy for providing housing choices and supporting aging-in-place for older homeowners (see below). A typical accessory apartment bylaw provides for a small unit in a single-family dwelling (and sometimes in accessory buildings), limits the size of the unit with floor area and number-of-bedroom standards, requires the project to preserve the appearance of a single-family home, requires the house or the apartment to be owner-occupied, and regulates the location of off-street parking. If Arlington had accessory apartment zoning in place, it could use CDBG or federal HOME funds to help subsidize the creation of accessory units for very-low-income seniors. Under current DHCD policy, the units would not "count" on the Subsidized Housing Inventory, but they would nevertheless address a local affordable housing need.
- Change the Zoning Bylaw to allow conversion of detached single-family homes to multi-unit dwellings, up to four units as of right, especially near the commercial areas on Massachusetts Avenue and Broadway. Arlington currently allows "apartment conversions" up to 18 units in the R4 and R5 districts and apartment buildings in the higher-density districts (R5, R6, and R7), but these uses require a special permit. Allowing smaller conversion opportunities as of right, subject to appropriate design standards, would encourage small-scale multifamily housing in areas with adequate facilities and access to transportation, and bring more people closer to the town's retail and service establishments.
- 4) Evaluate the aging-in-place needs of Arlington's senior population and begin to plan for changes in service delivery.

The housing plan should include an assessment of Arlington's aging-in-place needs – not only housing quality, but also accessibility, transportation and health care services, ample and diverse social and leisure programs, and opportunities to volunteer.

5) Zone for infill housing on nonconforming buildable lots.

Sometimes lots created before zoning took effect remain unbuilt because they do not comply with current regulations. Rather than keeping the property unused, unappealing, and off the tax base, the Town could establish regulations to allow substandard lots to be developed for housing. Market demand is growing in Arlington and could favor smaller scale development. Arlington should consider amending the Zoning Bylaw to allow infill housing to be built on lots that are otherwise unbuildable due to insufficient lot area. Changes to setbacks, height and density would have to be addressed.

6) Allow on-street parking in the vicinity of new multi-unit conversions or mixed-use developments and lower or remove the requirement for minimum parking.

The cost of parking is often the greatest hindrance to the economic feasibility of dense, urban developments. Minimum parking requirements should be removed for new mixed-use developments on Massachusetts Avenue and Broadway. These locations are well-served by public transit, and are close enough to commercial amenities and civic services so that the need for car use will be reduced. In addition, overnight on-street parking for residents in areas of mixed-use development should be allowed.

Economic Development

1) Amend the Zoning Bylaw to increase density in the business districts.

The B1 district helps to preserve small-scale businesses in or near residential areas, but changes in other business districts should be considered, too. The Town should allow higher-density and larger-scale development, particularly on Broadway and Massachusetts Avenue in East Arlington.

2) The Industrial district zoning should be updated in order to reflect current market needs. Whereas rezoning from Industrial to Business may not be desired or even possible due to present uses, some modifications to use regulations could be effective in business and job creation.

The following changes should be considered for the Industrial district:

- Remove the minimum floor area requirement of 2,000 sq. ft. for Personal, Consumer and Business Services. Some manufacturing facilities operate in small spaces, so it should be possible to subdivide available floor area if necessary to support smaller industrial operations.
- Allow all restaurants by right or special permit in the Industrial district. Patrons of dining establishments are now accustomed to finding restaurants in non-traditional settings. The restaurant industry is growing in the area, including fine dining and "chef's" restaurants. Due to the timing of operations, restaurants and manufacturing facilities can often share parking and access routes.

- Allow retail space by right or special permit in the Industrial district. Larger or industrial-type retail space may be served by current buildings, and allowing larger and less expensive properties to be used for retail may prevent their location outside of Arlington.
- 3) Promote new co-working centers to attract small business ventures, innovative companies, entrepreneurs, and currently home-based businesses. These contemporary work environments provide the facilities, services, and networking resource to support businesses and help them grow.

There has been an increasing amount of new co-work space across the nation. Co-work facilities lease offices, desks, or even shared benches for small businesses or individual entrepreneurs. They are meeting needs for comfortable, affordable, short-term work environments by providing monthly leases with maximum support. In the Boston area alone, several of co-work spaces have opened in Downtown Boston, the Seaport Innovation District, Central Square in Cambridge, Field's Corner in Dorchester, Chelsea, and more. These well-designed and well-equipped offices provide twenty-four hour workspace, lounges, meeting rooms, sometimes food and drink, and most importantly, smart and exciting places to work. They provide more than just an address for a small business; they help to "brand" the business with the collective work environment they inhabit. They are also a hub for networking, promotion, and events.

Arlington has many home-based businesses and freelance employees that could be attracted to work in these types of spaces. In addition, new entrepreneurs and small startup firms from Arlington and across the region would have a new, perhaps more accessible option for their operations. Other contemporary business models that often support co-work spaces include business incubators and accelerators. These facilities are operated as for-profit businesses, making equity investments in companies they host or as non-profit small business or workforce development projects. Supporting incubators or accelerators in Arlington's business scene is also worth investigating.

To develop or attract co-work space, business incubators and accelerators, Arlington should take the following steps:

- Engage with local co-work space providers in the Boston area to learn of their interests or concerns with the Arlington market. This process should include site visits to various co-work facilities in Boston, Cambridge, Chelsea, and Somerville. There should also be a continuation of the community engagement process begun by the Town in summer 2014. Meetings with residents, small business owners, and co-work space developers can help create customized business space for Arlington.
- Survey similar efforts by neighboring cities and towns, including the City of Boston and their current Neighborhood Innovation District Committee, which seeks to expand entrepreneurial small business development throughout the city.
- Identify incentives for small business creation that could be directed through the co-work, incubator or accelerator facility. Tax relief for the workspace property can be converted into cheaper individual rents. In addition, access to federal or state grants could be directed to the

development and/or operation of these spaces. This could include, for example, CDBG funds, SBA grants, or specialty loan funds or products from MassDevelopment.

4) Invest in the promotion and support of Arlington's theatres

A recently completed study, *The Economic Impact of Arlington's Theatres* (2013) estimates the impact of the Regent and Capitol theatres on the local economy, particularly for restaurants that benefit from theatre patrons. Arlington should further invest in the promotion of these venues and providing supporting infrastructure.

5) Implement the recommendations contained in the Koff & Associates Commercial Center Revitalization report.

Historic & Cultural Resource Areas

1) Develop a historic and archaeological resources survey plan to identify and prioritize outstanding inventory needs

This should include a prioritized list that includes civic buildings without inventory forms, threatened resources, and buildings in underrepresented neighborhoods such as East Arlington. The inventory can be used towards the demolition delay bylaw. This activity would be eligible for funding through MHC's Survey and Planning Grant program.

2) Seek Certified Local Government (CLG) Status for the Arlington Historical Commission

CLG status, granted by the National Park Service through the MHC, would put Arlington in a better competitive position to receive preservation grants since at least ten percent of the MHC's annual federal funding must be distributed to CLG communities through the Survey and Planning Grant program.

3) Expand Community-Wide Preservation Advocacy and Education

- Increase educational and outreach programs for historic resources. Develop public awareness campaigns to garner community-wide support for preservation initiatives. These efforts could include interpretive markers, informational brochures, and articles in local media, in addition to the utilization of smartphone apps and audio recordings in order to reach a broader audience. Educational initiatives would be an eligible activity for Survey and Planning Grant funds as well as other funding sources.
- Expand educational outreach to property owners of non-designated historic properties. The majority of Arlington's historic buildings are not protected from adverse alterations. While many homeowners appreciate their historic buildings, they may not be aware of methods for preserving the features that make these buildings special. Promote the benefits of historically-appropriate alterations, such as preserving historic wood windows, offer opportunities for combining historic preservation with economic advantages such as energy efficiency, and raise awareness of historic district designation requirements.
- 4) Implement a Comprehensive Plan for the Protection of Historic Resources

- Review and Strengthen Demolition Delay Bylaw. Arlington's existing demolition delay bylaw is limited both in terms of the types of resources subject to review and the time period allowed for the review. To address the deficiencies of demolition delay legislation, some communities have adopted provisions that require building officials to notify the local historical commission when any building more than 50 or 75 years old is proposed for demolition in order to determine historic significance. The length of the review period, currently twelve months in Arlington, could also be extended. Other communities have increased their delay period to eighteen or twenty-four months.
- Provide the AHC with the tools to designate a single-building historic district.
- Consider designating Architectural Preservation Districts (APD), Consider designation of an Architectural Preservation District (APD), also called neighborhood preservation districts and architectural conservation districts. This could allow the Town to define the distinguishing characteristics of scale and streetscape pattern that should be preserved in a neighborhood.
- Integrate Historic Preservation, Conservation, and Planning. Increasing redevelopment pressure on Arlington's existing historic properties has emphasized the need to guide redevelopment in a manner that respects historic character and the architectural integrity of the town's historic neighborhoods and commercial districts. Successful preservation of these resources will require preservation regulations and zoning to work in tandem to preserve the town's historic character and individual assets. Incorporating an active, formal role for the Arlington Historical Commission in the review of development projects affecting historic resources outside of designated historic districts would be important. In addition, the Town could review its environmental design review process and design guidelines to determine whether additional historic preservation objectives could be incorporated. To address the ongoing issue of residential teardowns, the town could consider adopting flexible zoning regulations to encourage the preservation of historic buildings. These new regulations could include different standards for dimensional and use requirements when an historic building is preserved and reused, such as the approval of a special permit for new building lots with modified dimensional standards if the original historic building is preserved.
- Amend the Zoning Bylaw to incorporate historic preservation into the development review process, e.g., by ensuring that the Historical Commission always receives site plan and EDR plans for review.
- Consider adopting flexible zoning to encourage preservation, e.g., by allowing conversions or a
 variety of uses where they would otherwise be prohibited in order to maintain a historic building's
 vitality,

5) Preserve the character of the Historic Districts.

- For Arlington's existing historic districts, the need for continued vigilance and dialogue between the AHDC and Building Inspector remains a priority to ensure that any changes within the districts are appropriate. Promoting stewardship for these districts is equally important. Creating a sense of place for these districts to highlight their significance and promote their importance to the community would aid in these efforts.
- The Town should implement the following:

- Replace deteriorated interpretive markers.
- Install unique street signs for designated streets.
- Ensure that historically appropriate public infrastructure improvements are applied to streetscape elements.
- The AHDC and Town departments should work together to determine historicallyappropriate improvements to the town's historic districts, which could include unique street markers, historic district signage, and public infrastructure improvements for historicallyappropriate sidewalks, curbing, lighting, and street furniture.

6) Preserve Town-owned historic resources

Several civic properties remain in critical need of restoration and not all town-owned resources are formally protected from adverse development and alterations. The Town needs to institute procedures to require historically appropriate preservation of municipal resources, including:

- Institute a regular, formal role for the Arlington Historical Commission in review and commenting on projects that affect Town-owned historic resources.
- Utilize the expertise of AHC members to ensure that restoration efforts are architecturally and historically sensitive and comply with the Secretary of the Interior's Standards for Rehabilitation.
- Develop long-term maintenance plans for town-owned historic buildings, structures, parks, cemeteries, and monuments.
- Place preservation restrictions on restored properties to ensure the preservation of publicly-assisted resources.
- Consider placement of Preservation Restrictions on Town-owned historic properties to ensure continued protection of these community landmarks.
- Implement recommendations established in past planning studies completed for Town-owned properties.
- Pursue historic preservation grants to fund restoration projects for Town-owned historic resources.
- 7) Adopt the Community Preservation Act (CPA).

Natural Resources & Open Space

1) Create a comprehensive plan for the Mill Brook environmental corridor, including possible "daylighting" options for culvert sections of the waterway, flood plain management, and pathways. In addition require public access or apply visual and physical design guidelines for new development along the corridor.

Comprehensive plans allow decision making at various scales to adhere to overlying principles. The Mill Brook corridor crosses residential, industrial and open space land use districts. These different zoning districts regulate land use, but do not necessarily ensure that new or repurposed developments react properly to their environmentally sensitive location. A Mill Brook plan should

create landscaping and building design standards, and establish requirements for public access to the Mill Brook, and the preservation of views.

 Address street tree problems, including the replacement of trees lost due to storms and the failed survival of many newly planted trees. Coordinate tree care between the Town and property owners.

Trees are a major asset for Arlington streets. They provide beauty and shade, help mitigate ground level pollution, and are part of the greater ecological system. Many trees were felled in recent storms, and more still are at risk. A plan with a specific timeline needs to be implemented in order to not just replace lost trees, but attain a desired planting density. A professional examination of failed plantings needs to be undertaken, and measures to prevent future failure need to be implemented. At current rates, Arlington is not replacing as many trees as it loses each year. A temporary budgetary allocation is required in order to reverse this trend and start a net increase in street trees.

Concurrently, the jurisdiction and management of street trees needs to be better outlined. The responsibility and care for street trees needs to be well understood by residents. The Town and the Tree Committee need to perform public outreach to educate property owners.

3) Pursue strategies to protect the large parcels of vacant land in the southeast corner of Arlington near Alewife Station and Thorndike Field. Preserve open space and manage the floodplain that lies across much of this site.

Three prime properties in southeast Arlington totaling fourteen acres remain undeveloped. The parcels, part of Arlington's only Planned Unit Development (PUD), remain vacant after several proposals were rejected by the Town. The properties are located adjacent to a large park (Thorndike Field), near the Minuteman Bikeway, Spy Pond and Alewife Brook. The majority of the site is located in the 1-percent flood zone and construction is heavily restricted. Arlington needs to continue to pursue resolution of this land, either for partial development or complete open space protection.

Among the tools available, a Transfer of Development Rights (TDR) bylaw should be considered as a combined land protection and economic development strategy. In order to be effective, a TDR bylaw will require partnering with a viable land trust so that development rights can be acquired efficiently when the owner of a "sending" area (such as the vacant land near Thorndike Field) is ready to sell.

- 4) Create a bylaw to control / remove invasive plants and species.
- Arlington should explore the legality of imposing restrictions on invasive plants and removing them from private property when they create a hazard or threat to other properties or public land.

Public Services & Facilities

1) Perform a space needs analysis for all Town-owned buildings.

The Town of Arlington owns and occupies many buildings across town. A quantitative and qualitative analysis of all these facilities is needed to prevent the underutilization of space and misappropriation of resources between departments. This analysis should also identify potential lack of space for current or projected use, and poor arrangement qualities that might affect the operations of a department. In addition to looking at the physical layout of space, an assessment of the environmental qualities, such as daylight and the availability of fresh air, should be undertaken.

2) Assess the benefits and drawbacks of the Town taking on maintenance of private ways.

The Town of Arlington operates trash and snow removal service on private ways, as a preventative measure for public safety. However, property owners or developers are responsible for maintenance of over twenty-three lane miles of private ways in Arlington. Many of these roads are in deteriorated condition, and continue to fall further into disrepair. The possibility of the Town eventually taking maintenance of some private ways in a worsened state might be worth consideration for assuming responsibility for these roads sooner. The costs and manpower involved in adding additional mileage to the purview of the DPW, however, is at present, a major drawback.

3) Establish a regular process for evaluating the continued need to retain Town-owned properties and for disposing of properties that no longer serve public purposes.

As part of its asset management responsibilities, Arlington should create a procedure to evaluate Town-owned properties as potential candidates for disposition, and policies to guide how proceeds from the sale of Town property will be used.

- 4) Improve the management and maintenance of town facilities and infrastructure.
- Establish a Planned Preventive Maintenance (PPM) program.
- Create a PPM for all Town-owned facilities.
- Fund a full-time facilities manager position within the Department of Public Works (DPW); transfer the maintenance budget and building maintenance personnel from the School Department to DPW. This position would benefit Arlington by having a centralized, professional expert overseeing all aspects of facilities management: custodial care, routine inspection, routine maintenance, repair and improvement projects, improvements to make facilities accessible to people with disabilities, energy use, budgeting, and planning. In addition to preparing a periodic assessment of and budget for these needs, the responsibilities of a facilities manager would include maintaining an inventory of the services provided in each facility, including town services and activities conducted by private groups that use town facilities.
- 5) Study and develop an actionable plan for addressing Arlington's long-term cemetery needs.

2. DEMOGRAPHIC PROFILE

A. WHO LIVES IN ARLINGTON?

Arlington was settled in the mid-1600s and its population grew slowly until the early twentieth century. Between 1870 and 1920, Arlington's population increased six-fold, from 3,261 to 18,665, and it would double again between 1920 and 1930. The population peaked at 53,524 during the 1970s. According to the Massachusetts State Data Center (University of Massachusetts, Donohue Institute), Arlington's population will increase 9.2 percent between 2010 and 2030, and most neighboring communities will gain population as well.¹ However, absolute population growth or decline will not matter as much as the dramatic increase in older residents that is happening throughout Arlington's region. The make-up of Arlington's population and households will continue to change in terms of population age, household sizes, and household wealth.

Table X.1. Historical Population and Future Population Projections						
Year	Population	% Change				
1920	18,665	-				
1930	36,094	93.4%				
1940	40,013	10.9%				
1950	44,353	10.8%				
1960	49,953	12.6%				
1970	53,524	7.1%				
1980	48,219	-9.9%				
1990	44,630	-7.4%				
2000	42,389	-5.0%				
2010	42,844	1.1%				
2020	43,735	2.1%				
2030	45,164	3.3%				
2035	46,776	3.6%				
Sources: Bureau of the Census, A	Nassachusetts Date	Center, 2014.				

POPULATION DENSITY

Arlington is divided into eight *census tracts*: small areas delineated for statistical purposes in order to track and report demographic change (Map X.1). Census tracts are intended to be stable and fairly permanent, but the boundaries sometimes change due to significant population growth or change in one part of town. By Census Bureau policy, the maximum population for a census tract is 8,000 people. When a tract approximates or exceeds the maximum, the Census Bureau will divide it into two smaller tracts, but the outer boundaries of the original or "parent" tract rarely change. Due to the land area and number of residents in each tract in Arlington, population density varies through the town (Table X.2).

¹ This forecast differs from Boston metro area population projections developed by the Metropolitan Area Planning Council (MAPC), which predicts that Arlington's population will increase by less than 1 percent by 2030. MAPC's projections for the entire region anticipate very slow growth if not some population loss, owing to a combination of declining household sizes, lack of developable land, high housing costs, and limited production of higher-density housing

Table X.2. Population Density							
	Density/Sq.						
		Area	Mi.				
Town	42,844	5.2	8,239.2				
Tract 3561	3,110	0.3	11,060.0				
Tract 3563	5,040	0.4	12,033.6				
Tract 3564	7,247	1.4	5,132.5				
Tract 3565	6,580	0.9	7,388.2				
Tract 3566.01	4,216	0.5	8,391.8				
Tract 3566.02	4,169	0.5	8,627.6				
Tract 3567.01	5,844	0.4	13,244.0				
Tract 3567.02	6,638	1.1	6,244.3				
Tract 3565 Tract 3566.01 Tract 3566.02 Tract 3567.01	6,580 4,216 4,169 5,844	0.9 0.5 0.5 0.4	7,388 8,391 8,627 13,244				

Sources: U.S. Census Bureau, Census 1010, and MassGIS, Census 2010 Boundary Files. Note: land area numbers may not total due to rounding.

POPULATION AGE

Consistent with national trends, Arlington's population is aging. From 2000 to 2010, the median population age increased from 39.5 to 41.7 years. Arlington's population is somewhat older than that of most nearby urban communities and the state as a whole, but younger than the populations of neighboring Lexington and Winchester. The most significant population increases occurred among people between 45-64 years – the Baby Boomers – 85 and over, and preschool and school-age children. Population losses occurred among people between 20 and 34 years. Today, the "over-55" age cohort accounts for 20 percent of Arlington's total population (Figure X.1). Future population projections call for declining numbers of school-age children and a tapering off of middle-age adults. The number of seniors is expected to increase more dramatically, as is the case just about everywhere.

RACE, ETHNICITY, AND NATIONAL ORIGIN

Arlington has limited racial and ethnic diversity, but there is a noteworthy foreign-born population and many people who speak languages other than English at home. According to the U.S. Census Bureau, Hispanic and racial minorities comprise 16.4 percent of Arlington's population, and 57 percent of the minority population is Asian.³ By contrast, minorities account for 27 percent of the Boston metropolitan area's population and 23.5 percent of Middlesex County's total population. Among Arlington's neighbors, only Winchester has a smaller minority population percent than Arlington.⁴

Approximately 15 percent of Arlington's residents are foreign born: people who immigrated to the U.S. from some other part of the globe, and most have been in the U.S. for over a decade. Immigrant communities make up much larger shares of the populations in cities and towns around Arlington except Winchester.⁵ In addition, Arlington has fewer residents for whom English is not their native language.⁶ Still, the presence of an ancestrally mixed foreign-born population – with many families

² U.S. Census Bureau, Census 2010, SF1 DP1, SF1 P12.

³ The U.S. Census reports racial and national origin or socio-cultural groups. People may self-identify as more than one race. In addition, people who identify as Hispanic, Latino, or Spanish may be of any race.

⁴ U.S. Census Bureau, Census 2010, SF1 P2.

⁵ U.S. Census Bureau, American Community Survey (ACS) 2007-2011 Five-Year Estimates, DP2, B05006.

⁶ ACS 2007-2011, B06007.

from China, India, Russia, and Greece – sheds light on why so many residents think of Arlington as a diverse town.

EDUCATION

Massachusetts has the most highly educated population of all fifty states, and the Boston Metro population is particularly well educated. Arlington residents are indicative of the region's high levels of educational attainment, for nearly 64 percent of the population 25 and over has at least a bachelor's degree – much higher than the state's 38.7 percent (Figure X.2). Moreover, 35 percent of the over-25 population in Arlington holds a graduate or professional degree, compared with 17 percent statewide. Most of Arlington's neighbors are home to exceptionally well educated residents, too, notably Lexington, where over half the adult population has a graduate or professional degree, and Winchester, at 40 percent.⁷

GEOGRAPHIC MOBILITY

Arlington has a fairly stable population. Over 88 percent of its residents lived in the same house a year ago, which is quite a bit more than Cambridge (72 percent) and Somerville (77 percent): cities with a large number of rental units and transient populations of college and graduate students. The difference between recent move-ins and longer-term residents is noteworthy. The median age of residents living in the same house at least one year ago is 43.6 years; among move-ins from some other part of Massachusetts, 29.8 years, and for new arrivals from another state, 31.9 years.⁸

B. HOUSEHOLDS AND FAMILIES

A **household** consists of one or more people occupying a single housing unit. The federal census divides households into two groups – **families** and **non-family households** – the former being households of two or more people related by blood, marriage, or adoption, and the latter including all other types of households, including single people living alone. Compared with surrounding towns (excluding the cities), Arlington has a larger share of non-family households (42 percent), and single people living alone comprise the overwhelming majority of these non-family households (Table X.3). The number of families overall increased slightly from 2000 to 2010, and families remain Arlington's most common household type. Still, they represent less than 60 percent of all households today. Married-couple families account for 81 percent of all family households in Arlington. The number of single-parent women increased 7 percent in the past ten years, and they make up 14 percent.

Table X.3: Change in Household Type (2000-2010)						
	Number					
HOUSEHOLD TYPE						
Total households	19,011	18,969	-0.2%			
Family households	10,779	10,981	1.9%			
Male householder	7,426	<i>7,</i> 390	-0.5%			
Female householder	3,353	3,591	7.1%			

⁷ ACS 2007-2011, DP2.

⁸ ACS 2007-2011, B07002.

⁹ Note: the Census Bureau reports all same-sex couples as non-family households regardless of their marital status under state law.

Nonfamily households	8,232	<i>7</i> ,988	-3.0%		
Male householder	3,122	3,088	-1.1%		
Living alone	2,291	2,378	3.8%		
Female householder	5,110	4,900	-4.1%		
Living alone	4,210	4,085	-3.0%		
Average household size	2.22	2.24			
Average family size	2.91	2.93			
Source: US Census 2000, QT-P10, US Census 2010, QT-P11					

Although household sizes have slowly decreased throughout the U.S., Arlington has experienced a somewhat different trend. Here, the number of households with two or three people declined between 2000 and 2010 and the number of four-person households increased. Of Arlington's 11,000 families, 48 percent have dependent children, up 5 percent from 2000. This is consistent with K-12 enrollment growth in the Arlington Public Schools over the past decade. Given the increase in number of families and the shift in household sizes, Arlington seems to have attracted small families looking for a reasonably affordable place to live in the Boston Metro area.

Family and non-family households are not evenly distributed throughout Arlington (Table X.4). Non-family households in general and one-person households in particular are more prevalent in the neighborhoods of East Arlington and Arlington Center. It is not surprising to find family households concentrated in predominantly single-family home neighborhoods, such as Morningside/Turkey Hill, where families make up 70 percent of all households. Families with children generally make up the same proportion of families in each part of town, however.

Table X.4. Distribution of Households and Families by Census Tract								
Total Total Pct. Families Pct. Non-Family								
	Households	Families	Households	With	Families	Households	Households	
				Children				
				Under 18				
Town	18,969	10,981	57.9%	5,107	46.5%	<i>7,</i> 988	42.1%	
Tract 3561	1,379	784	56.9%	338	43.1%	595	43.1%	
Tract 3563	2,320	1,260	54.3%	614	48.7%	1,060	45.7%	
Tract 3564	2,882	2,027	70.3%	903	44.5%	855	29.7%	
Tract 3565	2,839	1,781	62.7%	850	47.7%	1,058	37.3%	
Tract 3566.01	1,939	1,097	56.6%	538	49.0%	842	43.4%	
Tract 3566.02	1,691	1,025	60.6%	502	49.0%	666	39.4%	
Tract 3567.01	2,931	1,310	44.7%	566	43.2%	1,621	55.3%	
Tract 3567.02 2,988 1,697 56.8% 796 46.9% 1,291							43.2%	
Source: Census 2010, DP1.								

HOUSEHOLD AND FAMILY INCOMES

Arlington is becoming a wealthier town. Today, its median household income exceeds that of Middlesex County and the state as a whole. For budgeting and financial planning purposes, Arlington tracks several comparison towns: contiguous and non-contiguous communities that are reasonably similar to Arlington. Population wealth is among the factors used to determine comparability. Table X.5 shows that in 1969, Arlington was less affluent than Melrose and Stoneham, the two communities

with most comparable median family incomes to Arlington. By 1989, this was no longer the case. The income gap between Arlington and communities such as Natick and Reading is decreasing, too.

Table X.5: Median Family Income (Inflation-Adjusted to 2009 Dollars)								
Adjacent Towns and Financial Plan Comparison Communities								
1969 1979 1989 1999 200								
ARLINGTON*	\$71,206	\$72,963	\$91,263	\$101,398	\$106,280			
Belmont*	\$78,104	\$81,911	\$105,618	\$122,408	\$121,301			
Brookline*	\$79,022	\$75,026	\$106,921	\$119 <i>,</i> 751	\$139,558			
Cambridge	\$57,375	\$52,733	\$69,188	\$76,521	\$88,574			
Lexington	\$96,010	\$103,394	\$132,200	\$144,096	\$154,625			
Medford*	\$64,449	\$63,359	\$78,777	\$80,366	\$76,527			
Melrose*	\$72,042	\$73,740	\$93,196	\$100,629	\$99,101			
Milton*	\$85,692	\$84,234	\$107,206	\$121,510	\$124,938			
Natick*	\$75,643	\$75,836	\$96,879	\$110,378	\$115,327			
Needham*	\$91,760	\$93,950	\$120,270	\$138,522	\$162,813			
Reading*	\$77,198	\$83,214	\$105,402	\$114,706	\$116,250			
Somerville	\$56,084	\$53,841	\$66,666	\$65,988	\$73,772			
Stoneham*	\$71,341	\$72,476	\$88,706	\$91,859	\$96,399			
Watertown*	\$66,056	\$65,298	\$85,585	\$86,846	\$85,596			
Winchester*	\$92,701	\$97,564	\$129,572	\$141,942	\$156,364			

Source: HUD 2013, SOCDS & ACS 2009, 3 Year Estimates, \$1907.

Note: * refers to Arlington's Budget and Financial Plan comparison towns. The Financial Plan towns also include North Andover, but it is omitted from Table X.5 due to the unavailability of historic income data.

Nevertheless, household and family incomes remain higher in many neighboring towns and other Boston Metro communities. (A notable exception is the median non-family household income, which is higher in Arlington than every neighboring community except Belmont.) In addition, the income gap between Arlington and its wealthiest neighbors – Winchester and Lexington – has widened considerably. For example, forty years ago, Arlington's median family income was 77 percent of Winchester's; today, it is just 68 percent.

Forty-two percent of all Arlington households have annual incomes over \$100,000. This includes families and non-families. The vast majority of Arlington's higher-income households are families. In fact, more than one-fifth of all married-couple families have annual incomes of more than \$200,000. Non-family households have relatively low median incomes, i.e., about half of what married-couple families earn.

POVERTY

Arlington has among the lowest poverty rates in the Boston Metro area. Childhood poverty rates are very low at 2.3 percent, less than a quarter of the state average. By contrast, childhood poverty is much higher in Cambridge and Somerville. Families in poverty have very few suburban housing choices, for the cities have larger inventories of affordable housing and public housing. The poverty rate of individuals 18-64 years old is 4.3 percent, less than half the state average. Seniors have the highest poverty rate in Arlington, at 7.5 percent, which is still below average for Middlesex County.

Table X.6: Regional Incidence of Poverty (Estimates; 2011)							
Geography	Total	Under 18	18 to 64	65+			
		years	years	years			
ARLINGTON	4.4%	2.3%	4.3%	7.5%			
Belmont	5.2%	4.6%	4.9%	7.6%			
Cambridge	15.1%	16.7%	15.2%	12.4%			
Lexington	4.0%	2.4%	3.8%	6.9%			
Medford	8.8%	6.9%	8.6%	11.4%			
Somerville	14.9%	22.8%	14.0%	11.4%			
Winchester	3.5%	4.2%	2.4%	6.0%			
Middlesex County	7.7%	8.0%	7.5%	8.1%			
Massachusetts	10.7%	13.5%	10.0%	9.3%			
Source: ACS 2011, 5 Year Estimates, S1701							

GROUP QUARTERS

In Arlington and virtually all other communities, the total population consists of people in households and those living in *group quarters*. As defined by the Census Bureau, "group quarters is a place where people live or stay, in a group living arrangement, that is owned or managed by an entity or organization providing housing and/or services for the residents." Arlington's small group quarters population (291 people) is composed primarily of adults and juveniles in group homes. ¹⁰

¹⁰ Census 2010, QTP12.

3. LAND USE

A. INTRODUCTION

Most people do not use the term "land use" when they try to explain what a town looks like. Often, they refer to locally important landmarks and images that can be seen from the road or sidewalk. Describing Arlington Center as a linear district composed of several sub-districts, with an impressive civic block and low-rise commercial buildings, or its adjacent neighborhoods as moderately dense housing on tree-lined streets, is to characterize these areas by their land use patterns.

As an element of the Master Plan, Land Use connects all the other elements because land use planning incorporates all the land in Town, and the Town's vision for it. Land use refers to the location, type, and intensity of a community's residential, commercial, industrial, and institutional development, along with roads, open land, and water. Patterns of development vary by the land and water resources that support them, the eras in which growth occurred, and the evolution of a town's transportation infrastructure. The ages of buildings in each part of a town usually correlate with changes in land use patterns. Similarly, the placement of buildings in relation to the street and to each other tends to be inseparable from their age and whether they were constructed before or after the adoption of zoning. Furthermore, a town's development pattern and shape sometimes hint at its annexation history, or exchanges of land with adjacent cities and towns.

Most of the boundaries of Arlington's 5.2 square mile (sq. mi) land area¹¹ were formed while it was part of the original, much larger colonial settlement of Cambridge. In 1807, the newly incorporated Town of West Cambridge (the area west of Alewife Brook) separated from Cambridge. A small section of the town was carved out to join the new Town of Belmont in 1859, leaving in place the final boundaries of Arlington, which was renamed in 1867. Arlington's present development patterns hint at the connections that once existed with neighboring communities, particularly along Massachusetts Avenue and Pleasant Street. Once seamless ties that transcended geopolitical divisions created commercial corridors and residential neighborhoods.

Zoning was introduced to cities and towns in the early twentieth century. This method of regulating land use is intended to define and manage the growth and character of communities, preserving and protecting open space, and guiding future capacity. As a result of Arlington's history, its land use patterns are reflected in both organic and regulated forms. Arlington needs to evaluate, restructure, and update its zoning to help form the Arlington of tomorrow while preserving its historic past. Arlington residents understand that the pressure for development is high, and that impending change is inevitable. Planning for such change will result in healthy neighborhoods, a strong local economy, enhanced civic amenities, and a better quality of life for current and future residents.

11 Arlington's total area is 5.6 sq. mi., according to data from Arlington GIS and MassGIS. The federal Census Bureau reports Arlington's total area as 5.5 sq. mi.

B. EXISTING CONDITIONS

Arlington is a predominantly residential suburb of Boston, bounded by the towns of Belmont, Lexington, and Winchester and the cities of Medford, Somerville, and Cambridge. Most of Arlington is maturely developed. The commercial centers along Massachusetts Avenue are surrounded by dense, largely walkable neighborhoods. The most concentrated center of activity in Arlington lies between Massachusetts Avenue and Summer Street, Mystic/Pleasant Streets and Grove Street. This quadrant lies in the center of a valley that crosses the town, and it is the historic cradle of transportation routes. In addition to the main roads, the Boston and Maine railroad used to provide some passenger service, but mostly freight service up to the late 1970s. The Mill Brook also runs through the valley, though mostly channelized or in an underground conduit. Importantly, the former rail line and waterway once supported many industries that lined this district. In 2014, only remnants of industrial land use remain west of Grove Street and near Arlington Heights. The rail line was converted to a recreational trail in 1992 and is part of the regional Minuteman Commuter Bikeway.

1. Land Use Patterns

Land use can be quantified, that is, measured by the amount of land used for various purposes. However, a more enlightening method of analyzing a community is by looking at its land use patterns. In Arlington, especially in some dense central sections, there are several eclectic spaces; areas with seemingly random mixes of uses, variable lot sizes, building types and orientations. In many cases, these mixed-use areas pre-date the adoption of zoning and contribute to the "organic" feel of Arlington's older neighborhoods. Map X.1 illustrates Arlington's current (2014) land use patterns.

Massachusetts Avenue has played a critical role in Arlington's evolution. As the physical and figurative lifeline of Arlington, Massachusetts Avenue spans the town from Cambridge in the east to Lexington in the west. It lies in the flatlands of the town, and as the primary commercial corridor it draws people from the residential neighborhoods nestled in the gentle hills that surround it. Although one almost continuous commercial corridor, Massachusetts Avenue supports many nodes with their own identity, including the town's three primary commercial centers: Arlington Heights, Arlington Center, and East Arlington.

Over the years, development extended from Massachusetts Avenue south along Jason Street and Academy Street, north along Medford Street and Mystic Street, and east along Broadway and Warren Street. There is also evidence of late nineteenth- and early twentieth-century housing development in Arlington Heights and around Park Avenue, and in East Arlington as well. Streetcars once operated along Massachusetts Avenue, Mystic and Medford Streets, and Broadway, and were perhaps the greatest catalyst for housing development in the late nineteenth and early twentieth centuries. The urban street grid that characterizes much of East Arlington coincides with a significant concentration of densely developed worker housing: mostly two-family houses, and sometimes larger, most likely responding to the industrial growth that occurred in Arlington after the mid-nineteenth century.

Arlington grew dramatically during the interwar years (1920-1940) and again during the "Baby Boom" era (1946-1964). Neighborhoods filled in throughout the southern part of town, with single-family home subdivisions around Park Circle and Menotomy Rocks Park and small-scale multifamily housing

in East Arlington. These neighborhoods have the classic curved streets and car-oriented road layouts which typified suburban subdivisions at the time.

2. Zoning in Arlington

An important component of any master plan is an assessment of local zoning requirements, especially for consistency or conflicts with the community's goals and aspirations for the future. Zoning should express a community's development blueprint: the "where, what, and how much" of land uses, intensity of uses, and the relationship between abutting land uses and the roads that serve them. Ideally, one can open a zoning ordinance or bylaw and understand what the community wants to achieve. Unfortunately, this is not always the case in Massachusetts cities and towns, and Arlington is no exception.¹²

USE DISTRICTS

Arlington adopted its first Zoning Bylaw (ZBL) in 1924, but the version currently in use (2014) was adopted in 1975, when the state with many amendments since then. The ZBL divides the town into nineteen use districts (Map X.2), i.e., areas zoned for residential, commercial, industrial, or other purposes. There is nothing inherently wrong with a large number of zoning districts as long as the regulations make sense on the ground. In many cases, especially along Massachusetts Avenue, the zoning was probably relevant for what existed some time ago, but it is no longer suitable. In addition, many zoning districts are haphazardly divided, again based on past decisions that fit a different time and place.

Table >	(.1. Zoning Districts by Land Ared	1			
Abbr.	District Name	Acres	Abbr.	District Name	Acres
RO	Large Lot Single Family	238.2	B1	Neighborhood Office	25.9
R1	Single Family	1,771.5	B2	Neighborhood Business	16.9
R2	Two Family	619.7	B2A	Major Business	22.2
R3	Three Family	8.3	В3	Village Business	30.2
R4	Town House	19.4	B4	Vehicular Oriented Business	30.0
R5	Apartments Low Density	63.7	B5	Central Business	10.3
R6	Apartments Med Density	49.0	I	Industrial	48.7
R7	Apartments High Density	18.7	MU	Multi-Use	18.0
OS	Open Space	275.9	T	Transportation	0.8
PUD	Planned Unit Development	16.2		Total Acres (w/out water)	3,283.6
C	Aulinatan CIC "ina aha" Tala	المريد معامد ما		\\/:+h	- CIS

Source: Arlington GIS, "zoning.shp". Table omits water area. With water, the total area in the GIS zoning map is 3,509.89 acres (5.6 sq. mi.).

In addition to the prescribed zoning districts in Table X.1, there is also a wetlands protection overlay district that appears only in part of the zoning map. Like many towns in Massachusetts, Arlington has an Inland Wetland District that pre-dates the adoption of the state Wetlands Protection Act. The ZBL relies on a text description for some covered wetlands that are not specifically mapped, e.g., twenty

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¹² See Appendix X for a more detailed review of Arlington's zoning.

five feet from the centerline of rivers, brooks, and streams, despite a requirement of the state Zoning Act (Chapter 40A) that all districts be mapped.¹³

The name of a zoning district is not always a good indicator of how land within the district can be used. For example, much of Arlington's industrially zoned land is no longer used for industrial purposes. While the town has zoned about 49 acres for industrial development, a comparison of the zoning map and assessor's records shows that only fourteen acres (about 29 percent) of the Industrial District is actually used for manufacturing, warehouse/distribution, storage, and other industrial types of activity. Arlington allows some non-industrial uses in the industrial districts, and other non-industrial uses are probably "grandfathered" because they pre-date current zoning requirements. According to the assessor's data, the largest individual users of industrial land in Arlington are municipal (e.g., the Department of Public Works compound on Grove Street) or commercial, including auto repair. In fact, auto-related businesses account for most of the Industrial District's commercial uses.

Similarly, the six business districts have been developed with many uses in addition to the commercial uses for which they are principally intended. Information reported in the assessor's database shows that 20 percent of land in the business districts is used for residential purposes, including single-family homes and apartment units. Unlike its policies in the industrial district, Arlington allows multifamily housing by special permit in most of the business districts, and some of the apartments and townhouses located on business-zoned land came about because of this provision. The belief that commercial properties have been rezoned as residential is a common misperception in Arlington.

Many residents say **mixed-use development** should be explored along Massachusetts Avenue. Mixed use generally refers to ground floor retail with residential upper floors. The first floor retail helps to build an interesting, walkable business district while upper story residential units can provide density and the associated benefits of walkability, street vibrancy, and support for businesses and public transit. Arlington's zoning does not specifically address mixed-use buildings, although mixed uses occupy several historic buildings in the Industrial district and the business districts. ¹⁴ Past plans promote the inclusion of mixed-use buildings in the commercial centers, ¹⁵ and comments at the public meetings for this plan indicate that many residents would like to see mixed-use development as well.

USE REGULATIONS

The Table of Use Regulations (Section 5.04 of the Arlington ZBL) identifies a variety of land uses that are allowed by right or special permit in each zoning district. In general, Arlington's use regulations are quite restrictive because most uses are allowed only by special permit (SP) from the Arlington Redevelopment Board (ARB) or Zoning Board of Appeals (ZBA). That Arlington has so many special

¹³ G.L. c. 40A, § 4.

¹⁴ On this point, the Zoning Bylaw (ZBL) is ambiguous. For example, in ZBL Section 3.02, the Village Business District (B3) description provides, in part: "Multi-use development is encouraged, such as retail with office or business and residential," yet multi-use development is not specifically listed as permitted or allowed by special permit in the Table of Use Regulations. However, in Section 5.02, Permitted Uses, the ZBL provides: "A lot or structure located in the R6, R7, BI, B2, B2A, B3, B4, B5, PUD, I, MU, and T districts may contain more than one principal use as listed in Section 5.04 'Table of Use Regulation.' For the purposes of interpretation of this Bylaw, the use containing the largest floor area shall be deemed the principal use and all other uses shall be classified as accessory uses. In the case of existing commercial uses, the addition or expansion of residential use within the existing building footprint shall not require adherence to setback regulations for residential uses even if the residential use becomes the principal use of the property."

¹⁵ See, for example, Larry Koff Associates, A Vision and Action Plan for Commercial Revitalization (July 2010).

permit options makes it nearly impossible to develop a plausible forecast of the town's so-called buildout potential, i.e., the difference between the amount of development that exists now and that which could still be built under existing zoning.

- Residential. These uses include a broad range of residential building types, from single-family detached homes to various multi-family types, dormitories, assisted living facilities, and hotels. Single-family detached units are allowed in all districts except MU, I, T, and OS; two-family dwellings are also not allowed in these districts or the single family RO and R1 districts. Allowing single-family homes and duplexes in nearly all districts is sometimes referred to as cumulative zoning, which can result in incompatible uses (e.g., single family dwellings in a central business district may not be appropriate). All other residential uses are allowed only by special permit in Arlington's other zoning districts, which is highly restrictive.
- **Institutional and Educational.** These uses include community centers and related civic uses, hospitals, schools, daycare facilities, and cemeteries and similar types of uses. All uses in this category are allowed only by special permit in each zoning district except that private schools and institutions are allowed by right in Business Districts B2 through B5.
- **Agricultural.** Agricultural uses include a range of farming (except livestock), sale of garden and agricultural supplies, and greenhouse uses. They are allowed by right in all zoning districts as is common in Massachusetts. However, some forms of urban agriculture should be considered as being appropriate in more urban settings such as the village centers and central business districts.
- **Public, Recreational, and Entertainment.** The uses include a variety of public and civic services as well as recreational uses, which are allowed by right in most zoning districts. Other uses such as a post office, private recreational business, construction yards, theaters, and outdoor amusement are allowed only by special permit and in specific districts.
- **Utility, Transportation, and Communications.** These uses include bus, rail, and freight facilities, public and private parking facilities, and telephone utilities. All uses are allowed only by special permit in a limited number of districts except overhead utility poles which are allowed in all districts.
- **Commercial and Storage.** These are auto-related sales and service businesses which are restricted by special permit only in B4, PUD and I zoning districts.
- Personal, Consumer, and Business Services. These uses include print shops, financial institutions, various personal services, laundry services, consumer service establishments, funeral homes, veterinary clinic. These uses are allowed by right or by special permit in selected business districts as well as the PUD and I districts. Only funeral homes are allowed in residential districts R5-R7 by special permit. There are performance standards related to size for financial institutions (more than 2,000 gross sq. ft. requires a special permit) and laundry and consumer services (more than five employees requires a special permit in some districts).
- **Eating and Drinking.** This category includes traditional restaurants, fast-food establishments, drive-in establishments, and catering services which are allowed by right primarily in the business districts. There are performance standards related to the size of the restaurants requiring a special permit for those larger than 2,000 gross sq. ft. and on lots greater than 10,000 sq. ft., which is a fairly

low standard for a typical restaurant. There are no specific "drinking" establishments identified such as bars, pubs, or taverns, which are not permitted in Arlington. This sector has been growing rapidly over the past decade or more since Arlington started allowing beer and wine, and then liquor to be served in restaurants.

- **Retail.** Retail uses have performance standards related to size so that stores of 3,000 gross sq. ft. or more require special permits in business districts B2-B5 under the assumption that they are serving more than just the needs of "the residents of the vicinity". This is a fairly low size threshold for local businesses that may in fact be serving a primary market of customers in the surrounding neighborhoods.
- **Office Uses.** This category includes professional, business, medical, and technical offices allowed by right and special permit in the higher density residential districts, business districts, and MU, PUD and I districts. General office uses also have performance standards related to size requiring special permits for those 3,000 gross sq. ft. or more, which is also a fairly low threshold.
- Wholesale Business and Storage. These uses all require special permits and are limited in the B2A, B4, and the industrial district.
- **Light Industry.** These types of uses are mostly allowed by right in the industrial district but restricted by special permit in the B4 district. Only research and development facilities are allowed by right or special permit in high density residential, business and industrial districts.
- **Accessory Uses.** This category includes a diverse range of uses from private garages, home occupations, accessory dwellings, nursery schools, auxiliary retail, and storage. They are allowed by right and special permit in a broad range of zoning districts, as is appropriate.
- **Mixed Uses.** The only Mixed Use district in Arlington is located on the former Symmes property. Mixed-use development per se such as ground-floor retail with upper-story residential is not specifically provided for in Arlington's zoning, but the ZBL is unclear.

DENSITY AND DESIGN

Arlington has adopted a fairly prescriptive, traditional approach to regulating the amount of development that can occur on a lot (or adjoining lots in common ownership). The Town's basic dimensional requirements cover several pages in the ZBL, including some twenty footnotes that explain or provide exceptions to the Table of Dimensional and Density Regulations. In addition to minimum lot area requirements, Arlington regulates maximum floor area ratios (FAR), lot coverage, front, side, and rear yards, building height, parking requirements and minimum open space. In most districts, the maximum building height is 35 feet and 2 ½ stories – traditional height limits for single-family and two-family homes but challenging for commercial buildings. Apartment buildings in some of the business-zoned areas can be as tall as 60 or 75 feet, and possibly higher with an Environmental Design Review (EDR) special permit from the ARB (Section 11.06 of the bylaw). 16

The ZBL lacks requirements such as building placement on a lot and building orientation, or tools that could help to regulate form in a coherent way. Due to the prevalence of one-parcel districts along

¹⁶ The Planning Department notes that since cellars do not count toward the calculation of maximum building height, they can effectively cause structures to be taller than 35 feet.

Massachusetts Avenue, Arlington essentially requires variable building setbacks from lot to lot, though most of these properties have some zoning protection for pre-existing conditions. Still, a project involving parcel assembly and new construction might be in more than one zoning district and have to contend with varying zoning requirements. It might not be harmonious with adjacent uses, too.

RESIDENTIAL DISTRICTS

- Lot Area Requirements. The minimum lot size for residential uses ranges from 5,000 to 9,000 square feet (sq. ft.), which seems consistent with prevailing neighborhood development patterns. Large lot sizes are required for multi-family buildings, as expected. The minimum frontage requirements are also generally consistent with prevailing development patterns in the neighborhoods and underlying zoning districts. One exception is that townhouse structures require 20,000 sq. ft. and 100 feet of frontage, yet townhouses are typically attached single-family homes on separate lots. They typically have frontage widths of 16 to 30 feet and lot sizes as small as 2,000 square feet. The standards should be revised to clarify the number of attached townhouses that are permitted without a break (such as nine to twelve).
- Other Requirements. Standards that affect intensity of use, such as maximum floor area ratio (FAR), lot coverage maximum percent, setbacks (front, side, rear), open space ratios, and minimum lot area/D.U., seem reasonable and consistent with prevailing development patterns in the neighborhoods. One exception is that townhouses typically have a higher FAR than 0.75. These building forms should be considered separately from apartment houses and office structures in the dimensional requirements.

The maximum residential height, typically 35 feet and 2½ stories in the lower intensity residential districts and 40 feet and 3 stories in the higher density districts, is largely consistent with prevailing development patterns in the neighborhoods and commercial corridors. However, if Arlington wants to provide for a broader range of housing types and mixed uses, taller buildings and a reduction in square feet per dwelling unit may be desirable in selected areas. These kinds of incentives can be augmented with an increase in the percentage of usable open space on a site with access to the surrounding area.

BUSINESS DISTRICTS

- Lot Requirements. The minimum lot size and minimum frontage are reasonable and consistent with prevailing development patterns and the context of the different districts. For example, no minimum lot size and 50 feet of frontage for most uses in the village centers is a context-based dimensional standard.
- Other Requirements. Several standards affect intensity of use and design. The maximum FAR of 1.0 to 1.4 is reasonable and can be adjusted with a special permit. However, Arlington also has a minimum lot area per dwelling unit that is unnecessary and could discourage mixed-use development. The amount of area needed for commercial lots will always be driven by the amount of parking either required by zoning or demanded by the market. Adding artificial standards that increase lot size without a particular benefit to the inhabitants is not advised. Requirements for landscaped and usable open space are more important in mixed use areas and can help attract residents to live in village centers.

The minimum front, side, and rear yard requirements, coupled with the landscaping and screening standards where necessary, are consistent with existing development. For example, in the B3 and B5 districts which cover the vast majority of land in the village centers, there are no front or side setback requirements. This allows buildings to be placed at the edge of the sidewalk, thereby enhancing the pedestrian environment by moving parking lots to the side or rear. However, this does not guarantee that buildings will be close to the street. They could still be set back, diminishing walkability and street activation, because Arlington does not have building placement and occupation standards in areas that cater to pedestrians.

The maximum height regulations provide some incentives for new infill development, but not redevelopment. In areas with many 2- or 3-story structures, a building of 5 stories and 60 feet could appear out of context and scale, but this type of impact can be mitigated with additional setback or building step backs, or a combination of thereof.

Finally, Arlington's open space requirements (percentage of total gross floor area) seem reasonable, but could be more specific in some districts. Landscaping should be primarily focused on streetscape enhancements (street trees, planters, and hardscapes such as plazas and seating areas), shading of parking lots, and screening from abutting uses where necessary. Usable open space in the village centers is critical. This can take place on individual lots (such as dining terraces, forecourts, etc.) and collective spaces such as plazas, commons, greens, and pocket parks. These usable open spaces are a significant draw to the districts and can be publically or privately owned, with property owners contributing to their establishment and maintenance in lieu of on-site requirements.

MU, PUD, I, T AND OS DISTRICTS

Requirements for lot size, yards, building heights, intensity of development, and open space in the MU, PUD, I and T districts are fairly minimal and flexible, providing additional incentives for redevelopment. Regulations for the Open Space district (OS) are very strict, for this district includes public parks, conservation lands, and open spaces.

OTHER REQUIREMENTS

Environmental Design Review (EDR). Arlington's EDR process blends an enhanced form of **site plan review** with authority for the ARB to grant special permits. EDR applies to most uses over a certain size that abut important thoroughfares—Massachusetts Avenue, Pleasant Street, Broadway, the Minuteman Bikeway, and parts of Mystic and Medford Streets within Arlington Center. The Town requires an EDR special permit for any residential development of six or more units, and all nonresidential uses that exceed specified floor area thresholds. The ARB conducts design review as part of the EDR process under Section 11.06, but the Town has not formally adopted design guidelines for the commercial areas. It would be difficult for property owners and developers to know what the Town actually wants and to plan their projects accordingly.

Off-Street Parking. Arlington requires all land uses to provide off-street parking. In many ways, the Town's off-street parking requirements are quite thoughtful. For example, requirements such as one space per 300 sq. ft. of retail development and one space per 500 sq. ft. of office development are fairly reasonable compared with the rules that apply in many towns. Arlington also provides for off-street parking on premises other than the lot served (i.e., off-site parking), if the permitting authority finds

that it is impractical to construct the required parking on the same lot and the property owners have a long-term agreement to secure the parking. In addition, Arlington allows substitution of public parking in lieu of off-street parking if the public lot is within 1,000 feet of the proposed use. Consistent with the purpose statement of Section 8.01 (Off-Street Parking and Loading Regulations), Arlington prohibits front yard parking in residential areas in order to promote aesthetically pleasing neighborhoods, preserve property values, and avoid undue congestion. Arlington has adopted bicycle parking requirements for lots with eight or more vehicular parking spaces, too.

Despite (or perhaps because of) the Town's generally reasonable parking standards, complaints about inadequate parking abound in Arlington. Property owners and merchants say the situation in East Arlington is most troublesome and that the area's development potential is capped by the lack of parking. Meanwhile, residents complain that the two-hour parking limits in East Arlington are enforced only in the business districts, not in the adjacent residential neighborhoods. Moreover, Arlington does not have an abundance of on-street or public parking, so the seemingly flexible provisions of the ZBL may not have much practical benefit. Even in districts where maximum height limits would not impede redevelopment, the off-street parking regulations could do just that – making parking regulations a form of dimensional and density control. It should be noted that many admired older buildings in the commercial districts do not meet parking requirements and would therefore be forbidden today. Parking supply management is not a land use issue per se, but it has an undeniable impact on the public's receptivity to more intensive development – which in turn has an impact on a special permit granting authority's approach to development review and permitting.

NONCONFORMING USES AND STRUCTURES

Arlington's zoning makes a remarkably clear statement about **nonconforming uses and structures**: they cannot be extended (increased). While the Town gives the ZBA some latitude to approve a change of one nonconforming use to another nonconforming use that is reasonably similar, the overall message of the ZBL is that nonconformities should be eliminated over time. Still, according to the Planning Department, the Town has given "wide latitude" to nonconforming structures, sometimes granting them greater expansion than conforming structures.

Under both state law and the Town's zoning, the standards for expanding or altering nonconforming single-family and two-family homes are less demanding than for other land uses. Single-family and two-family homes may be altered and extended if a proposed project does not create new nonconformities and is not detrimental to the neighborhood. (Changes to nonconforming structures may also trigger Arlington's demolition delay bylaw). Arlington's zoning does not allow use variances.

POTENTIAL CONFLICTS WITH STATE LAW

Arlington's present zoning is sometimes inconsistent with the state Zoning Act (Chapter 40A) and case law. For example, Arlington requires a special permit for churches and other religious uses, day care and kindergarten programs, and public and private non-profit schools, yet Chapter 40A plainly exempts these uses from local control, other than "reasonable" dimensional regulations. Libraries, which usually qualify as an educational use, also require a special permit in Arlington. Ironically, non-exempt schools such as trade schools conducted as a private business are allowed as of right in Arlington's business districts, yet public and non-profit schools require a special permit. "Rehabilitation residence," which Arlington defines as a "group residence" licensed or operated by the

state, also requires a special permit, but Chapter 40A forbids imposing special permit requirements on housing for people with disabilities.

In addition, the Town's approach to regulating farms does not square with state law, which specifically protects farming in all of its varieties (including agriculture, horticulture, and permaculture) on five or more acres of land. As a practical matter, Arlington's compliance or lack thereof with the state's agricultural protections may be a moot point because the Town does not have five-acre parcels in agricultural use. Nevertheless, the bylaw's attempt to block livestock or poultry even on larger parcels is incompatible with state law.

C. ISSUES AND OPPORTUNITIES

1. Managing Growth and Change

Concerns about Change. Whether in Arlington or most any other town, people like to keep things "as is," yet change will continue to occur. Many people interviewed during the early stages of developing this master plan had lots to say when asked what had changed in Arlington during their time here. Future changes will come either in a way that is directed and achieves the goals citizens have carefully cultivated, or in a reactionary way, emerging haphazardly as developers capitalize on opportunities as they occur in a piecemeal fashion.

In public meetings for this plan, residents said they want to maintain Arlington's historic character, and curb – or at least exercise greater control over – new development. Residents seem concerned that additional development will be out of scale or character with the qualities they value in their community. One purpose of a master plan is to identify and strive to preserve the community character that residents cherish. Another purpose is to identify areas that might benefit from reinvestment, and to enable the community to take an active role in encouraging redevelopment in strategic areas to meet community needs. When development is directed toward underutilized sites, these sites can be put to greater use, while also lessening development pressures elsewhere.

Density and Design. Arlington residents took part in a live and online visual preference survey (VPS) in June 2014. The study, entitled "Do you like this or that" asked respondents to compare or rate images of buildings and streetscapes. The results provide an interesting gauge of aesthetic and urban forms including material, use, density, and height. The results indicate great acceptance of mixed use development along Massachusetts Avenue and Broadway, and of building heights up to four stories. Greater massing and height without setbacks began to raise some concern. Further analysis reveals a preference for unique and eclectic design, albeit within balanced and symmetrical forms. (See Appendix X for survey results).

Development and Sustainability. There is a general sentiment among Arlington residents that the town is already built out. However, a closer urban design examination reveals that Arlington has considerable potential for change. In some areas, redevelopment could enhance characteristics the community cherishes and simultaneously contribute to a tax base that needs expansion and diversification. Existing development needs ways to evolve when it becomes unmarketable or obsolete for its original intended use, e.g., the redevelopment of the former Symmes Hospital site. Growth does not have to occur at the expense of open space. On the contrary, creating incentives and establishing a

favorable development climate for density in certain locations can offset pressures where open space and parks are in greatest need. Wherever possible, Arlington should seek to direct new development to locations with or adjacent to existing assets, near transit in order to reduce auto dependency, and near existing services and infrastructure.

Alternatives to the Special Permit. Arlington uses the special permit as a tool to control the scale and design of development, which may be necessary for large complex proposals. However, it may not be necessary for small projects and uses that are more typical in a given zoning district. An alternative to controlling nearly all uses by special permit would be to allow more uses by right with specific performance standards that address the potential impacts on surrounding land uses. Performance standards may include limits not only on business size, but on building scale and massing, placement on the lot, height, screening and landscaping buffers, parking requirements, light and noise limitations, and other particulars such as limitations on drive-thru establishments.

2. Opportunity Areas

Massachusetts Avenue. While market demands and individual development decisions will continue to occur on a town-wide scale, the geography most advantageous for redevelopment is that which is proximate to the primary commercial corridor, Massachusetts Avenue. Arlington Heights, Arlington Center, and Capitol Square in East Arlington each benefit from their relationship to the town's primary transit corridor, but each one manages to maintain its own identity and character. Arlington's commercial areas are made up of distinct sub-districts. For example, Arlington Heights has one of the last remaining industrial areas. It is also bounded by two major arteries, Park Avenue and Lowell Street. As the Minuteman Bikeway continues to emerge as a viable commuting and recreational corridor between Massachusetts Avenue and Summer Street, additional development pressures will place greater burdens on this underutilized swath of land. Arlington Center lies at the confluence of the town's commerce and civic uses. It is the undeniable center of town. How can it grow in ways that do not burden an already congested roadway network during the peak travel periods? East Arlington's Capitol Square area continues to build a reputation for new restaurants and shops. In what ways can this area grow and become more of a destination?

Though outside the scope of a town-wide master plan to "design" individual buildings, there are fundamental design principles that can mitigate the effects of increased height or greater lot coverage on adjoining properties. To a large degree, the alignment, form, and massing of a project can make the difference between a development that ignores its context and one that contributes to the character of the town. Arlington, like any town, needs to evolve and grow in order to thrive in the twenty-first century.

Unique Mixed-Use Nodes. Arlington has opportunities to develop unique mixed use activity centers in strategic locations along its primary corridors, including Massachusetts Avenue., Broadway, and Summer Street. The presence of activity centers should enhance economic vitality and promote social interaction and community building. These evolving centers, where appropriate, could include a mix of uses and activities located close together, providing people with new options for places to live, work, shop, and participate in civic life. Centers should vary in scale, use, and intensity. They should fill voids in Arlington's hierarchy of village centers, corridors, and neighborhoods such as with new walkable neighborhood centers and commons. They should be targeted to vacant, obsolete and underutilized

properties. Potential opportunity areas could include land along the Mill Brook corridor, Broadway, the Battle Road Scenic Byway, Mirak Car Dealership and Theodore Schwamb Mill, Gold's Gym, and Schouler Court.

Mill Brook. The revitalization of former industrial sites along the Mill Brook will have a significant and ongoing economic impact on the town. This area and the legacy it represents can provide the building blocks for new economic development in Arlington. By focusing attention and resources on this corridor, Arlington would be directing its resources to areas with the greatest need and potential. Resuscitating some of the large sites and underutilized buildings in this area should be a high priority if Arlington wants to preserve the character of other districts. In addition, Arlington has a strong trail network that in many places abuts the Mill Brook. Properties that are currently oriented away from the Mill Brook could be compelled to change their orientation and recognize both the brook and the Minuteman Bikeway as assets. The ability to craft and implement a successful redevelopment program for this underutilized area depends partly on the desirability of Arlington as a business location, the economics of the individual properties, and on the Town's ability to foster incremental changes.

Complete Neighborhoods. Within each of Arlington's neighborhoods, consideration should be given to providing more "complete" neighborhoods that provide for a limited mix of uses and diverse housing types, close to schools, open spaces, and other activity centers. Methods may be considered such as corner stores and live-work units at designated intersections, accessory apartments, cooperative or co-housing, and others.

3. Arlington's Primary Commercial Centers

COMMERCIAL AREA REVITALIZATION PLAN

In 2009, Arlington retained Larry Koff & Associates to address concerns about the existing and future vitality of the three primary commercial centers: Arlington Heights, Arlington Center, and East Arlington. Koff & Associates built on an earlier study by ICON Architecture (1994) that supported creation of a "string of three villages along the Mass Ave. boulevard." In their 2010 plan, A Vision and Action Plan for Commercial Area Redevelopment, Koff & Associates identified three primary findings and outline methods for addressing them in Arlington's commercial districts:

- Arlington Center should be the focus of a comprehensive revitalization initiative
- A range of actions should take place in each of the districts involving physical improvements, revised regulations, enhanced tenant mix, and organization support.
- Public/private partnership is necessary to be successful in the revitalization process.

The following summary from Koff's study captures issues that need to be addressed in the implementation program for this master plan.¹⁷

Arlington Heights provides a mix of retail shops, personal and professional services, and restaurants primarily supporting the needs of surrounding neighborhoods, but also including some "destination" retail that serves a broader customer base. In terms of public and civic amenities, the Minuteman Bikeway crosses the district on Park Avenue north of the intersection. The Post Office is located on

 $^{^{17}}$ For graphics that accompany this section, see Appendix 1.

Massachusetts Avenue, and there are a number of religious institutions in the area. The Locke School Condominiums and playground are located in this area, and the Mt Gilboa conservation area and Hurd Field are a few blocks away. The Mill Brook also bisects the district and provides future opportunities for passive recreation and attractive redevelopment.

Generally, Arlington Heights is in the best physical condition of the three village centers. Streetscape enhancements coupled with façade and sign upgrades have improved the aesthetic qualities and vibrancy of the district. The local businesses are also well organized and involved in promotional activities including their own website (Shopintheheights.com).

The Gold's Gym site is located in Arlington Heights on Park Avenue, with access from Park Avenue, and frontage on Lowell Street, and bordering the Minuteman Bikeway. It is bisected by the Mill Brook. Higher density mixed uses in this location could increase the draw to the Arlington Heights commercial center, add new customers to the trade area, expand housing options to local residents, provide new business needed and desired by area residents, enhance access to the Minuteman Bikeway and Mill Brook, and create a positive transition between the business districts and neighborhoods to the north. A project of this type and form would require rezoning to allow for a mixed use development in this location.

East Arlington is a thriving business district, entertainment destination, and center for creative arts and crafts. Capitol Square is the focal point of the district, centered on the intersection of Massachusetts Avenue and Lake Street, and it includes the surrounding blocks along Mass Ave between Oxford Street and Orvis Road to the west and Melrose Street to the east. The district is anchored by the Capitol Theater, which has attracted other complementary businesses including a series of arts and crafts boutiques, and eating and drinking establishments. Its proximity to the Minuteman Bikeway and Alewife MBTA station are important assets. While East Arlington is a town-wide and visitor destination, it has a number of personal and professional services, religious institutions, and the Fox Library, all providing for the regular needs of surrounding neighborhoods. Nearby public and civic amenities include the Crosby School and playground on Winter Street, and Hardy School and playground on Lake Street and the Minuteman Bikeway.

East Arlington Village Center will continue to grow as a local and regional destination for food, art, and entertainment. The East Arlington Massachusetts Avenue Rebuild Project will upgrade the corridor between the Cambridge city line and Pond Lane, and include improvements in the East Arlington Business District to revitalize the streetscape and enhance mobility and safety for vehicles, pedestrians, and bicyclists with new bicycle lanes and pedestrian crossings.

One of the main issues in East Arlington is the amount, distribution and use of parking in and around Capitol Square. It is constrained by the lack of a publicly owned parking facility. Parking strategies are evolving through a cooperative initiative involving the Town, Transportation Advisory Committee (TAC), and local business owners to consider the following:

■ Facilitate shared-parking agreements between property owners to maximize the supply of short-term parking spaces most convenient to customers.

Collaborate with local businesses, property owners, and residents to assess the need for changes to parking management to improve parking turnover and provide revenue for parking improvements and revitalization in the district.

Arlington Center is the "downtown" and historic center of the town. Its axis is on the Massachusetts Avenue intersection with Mystic Street/Pleasant Street. Arlington Center includes two sub-districts east and west of this intersection: Arlington Center East (ACE) and Arlington Center West (ACW). ACE includes the area centered on Massachusetts Avenue between Mystic Street and Franklin Street. Within the ACE sub-district, there are six focus areas:

- Jefferson-Cutter House and Park
- Russell Common/Mystic Street Corridor
- Massachusetts Avenue Corridor Core Area
- Medford Street Corridor
- Broadway Plaza (at confluence of Mass. Ave., Broadway and Medford Street)
- Monument Square (the triangle of land between Massachusetts Avenue, Broadway and Franklin Street)

The ACW sub-district is centered on Massachusetts Avenue between Pleasant Street and Academy Street. This is the historic and civic core. It includes Arlington Town Hall, the Robbins Library, the Central School containing the Senior Center, the main Post Office, the Whittemore-Robbins House, and several social and religious institutions.

Arlington Center includes several public open spaces such as the Winfield-Robbins Memorial Garden (between the library and Town Hall), Whittemore Robbins House Park and Old Burying Ground (both off Peg Spengler Way), Whittemore Park and Jefferson Cutter House (at the corner of Mystic Street), Uncle Sam Park (at the northwest corner of Massachusetts Avenue and Mystic Street) and Broadway Plaza. The district is also bisected by the Minuteman Bikeway. Many formal and informal community activities are held on these grounds throughout the year. Other nearby public and institutional facilities include several active churches, the Central Fire Station, Jason Russell House, Spy Pond recreational fields and Spy Pond Park, Arlington High School, and Arlington Catholic High School.

Arlington Center needs improvements to walkability, connectivity, and access between and within the Arlington Center sub-districts. This includes a more uniform streetscape across the district that ties it together and supports business activity, enhances public amenities and opportunities for civic gatherings, and is friendly and intuitive for different modes of travel (vehicles, bus transit, pedestrians, and bicyclists). There are other needs as well:

- Enhance and maintain the district's appearance and physical character with physical improvements and renovations to deteriorated sites, buildings, street furniture and rights of way.
- Attention should be focused on rebuilding Broadway Plaza to make it more inviting, attractive and useful to shoppers, pedestrians, diners and other users.

- Revise regulations to support desired and appropriate building placement, form, scale, density and mix of uses.
- Address parking needs in the district including shared parking, on-street parking additions, new facilities, adjusted time limits, better management of existing parking supply, and consistent enforcement. Critically examine options for building structured parking on the Russell Common parking site.
- Make walkability and street activation enhancements such as sidewalk areas for outdoor dining and entertainment, gateway treatments and wayfinding signage.
- Encourage storefront façade and sign enhancements where needed, window signs and treatments, blade signs, lighting, and other enhancements.
- Facilitate building façade restorations where needed.
- Revise regulations to support mixed use development with first floor retail and upper story residential to supports local businesses.

PUBLIC/PRIVATE COOPERATION AND COMMITMENT TO THE VILLAGE CENTERS

Good public/private cooperation is based on an understanding of the interdependence of buildings and the "public realm" in traditional village centers, e.g., streets, sidewalks, parking, and open space. Creating a good pedestrian environment requires attention to civic gathering spaces, sidewalks, and street activation which in turn encourages private investment and a mix of business types.

Public/private cooperation in the revitalization of Arlington's village centers needs to involve a broad range of municipal departments, boards and committees. On the private side, property owners, residents, business owners, potential developers, and local business organizations such as the Friends of Broadway Plaza, Capitol Square Business Association, and the Arlington Heights merchants group need to be committed to the revitalization process and to working with the Town toward common goals.

4. Urban Design

Traditional village centers and neighborhoods, whether established and historic, or new and emerging, often have common settlement and design characteristics as identified below:

- Tight settlement patterns
- Building functional and architectural compatibility
- Moderate block size with lengths and widths that are at comfortable pedestrian scale
- Street wall/street enclosure (the ratio of building height to street width) that provides a comfortable pedestrian environment
- Strong terminal vistas.

Arlington is fortunate to have these elements already in place in many areas. These design indicators should be considered baseline criteria for revitalization initiatives in the village centers, and other

commercial areas along Arlington's primary corridors including Massachusetts Avenue, Broadway, and Summer Street.

Tight Settlement Patterns. Tight settlement patterns provide good walkability and support diverse retail in traditional village and neighborhood centers where pedestrians have an opportunity to view more storefronts in a shorter distance. Tight settlements can generally be determined by key building placement and dimensions such as:

- Zero or short building setbacks;
- High frontage occupation by the primary buildings;
- Narrow frontages and storefront widths; and
- High ratios of building coverage to land area and floor area ratios (density indicators).

Arlington Center, East Arlington and Arlington Heights all share these traditional settlement patterns which provide an urban form that supports walkability. Arlington Center in particular illustrates the traditional patterns with the orderly row of commercial, institutional and mixed use buildings lining the sidewalk along Massachusetts Avenue with intermittent public open spaces. Most of the historic settlement patterns in the three village centers remain intact and should be retained. These patterns are typically different from other corridor segments along Mass. Ave. where larger and wider buildings may be pushed back from the street with parking in front.

Functional and Architectural Building Compatibility. Building compatibility can be determined by their use, placement, size, scale, height, forms, and general architectural styles. For the most part, buildings in Arlington Center, East Arlington and Arlington Heights were constructed before the automobile was commonplace, and designed to be an excellent pedestrian environment which was often the primary mode of transportation. Residences, businesses and workplaces were meant to be accessible on a pedestrian scale, and the architecture supported both density and mixed use. The majority of buildings in the three village center core areas are one to three stories. This is somewhat shorter than commercial districts in Cambridge and Somerville, likely because of the more linear development pattern created by the streetcar and being in the rural fringe at a time of significant growth. Many buildings are partitioned into shop fronts of 20 to 40 feet facing Massachusetts Avenue. These buildings are typically placed along front lot line at the sidewalk edge. Most buildings have high ground floor plates allowing for taller shop front facades and windows. Tall windows and transoms allowed natural light to reach the back of the store providing energy efficiency.

Block Size. Moderate block size is an important factor in creating walkable streets and a comfortable pedestrian environment. In a traditional village center, an ideal block width is about 250 feet and a maximum of 600 feet. (Traditional neighborhoods can have longer blocks). If blocks are too long (greater distances between intersections), vehicle travel speeds tend to increase which can diminish the pedestrian environment. Shorter blocks break up the building spaces and provide depths to the business district, which may improve access to parking and interest to the pedestrian. The additional street frontage can also create new business development opportunities. Arlington Center, East Arlington and Arlington Heights all have short blocks, typically 250 to 350 feet between intersecting streets. However, because the Town witnessed significant growth along Mass. Ave with the addition of the streetcar, the commercial development is more linear in form than most communities and the

depth of the three village centers is limited to one block by the well-established residential neighborhoods that abut the districts.

Street Enclosure. This urban design feature is the ratio of building height to the width between buildings across a street, and typically includes the street, sidewalk, and front yards of buildings. Street enclosure contributes to a comfortable pedestrian environment. In a traditional village center, good street enclosure ratios would generally be around 1:2. If the ratio is too low, the buildings across the street feel distant and disconnected. If the ratio is too high the buildings may appear too large creating a canyon effect along the street and shadowing during long stretches of the day. As street enclosure is an important walkability indicator, it was measured in several locations along Massachusetts Avenue in Arlington Center, East Arlington and Arlington Heights as illustrated in the figures below. Where street enclosure is less than desirable, in cases of excess parking frontage or under-developed properties, there may be opportunities for infill development to build up the street wall. If this is not possible, than various streetscape enhancements can help improve the pedestrian environment. These principles apply to established as well as emerging centers as well as targeted redevelopment sites where improved walkability is a design objective.

Transitions. Transitions or "Like Facing Like" refers to the way different building types are situated on a street. Ideally, the same building types should be across the street from each other. In many places including Arlington with conventional zoning regulations, blocks are built so that the same or similar building types are built along the same side of the street with different building types located across the street. For example, Arlington Center has Village Business District (B3) on the north side of Massachusetts Avenue facing a Central Business District (B5) on the south side of street, east of Mystic Avenue; and a Central Business District (B5) and Village Business District (B3) on the north side of Massachusetts Avenue are facing a Single Family Residential District (R1) on the south side, west of Pleasant Street. This checkerboard zoning pattern is even more prevalent on other segments of Massachusetts Avenue., as well as Broadway and Summer Street. This approach can be unpredictable, generate incompatible uses, impact access and walkability, and potentially result in lower property values. As an alternative, similar building types should be facing each other because this arrangement protects the character of the streetscape by ensuring that buildings with similar densities are facing one another. The official zoning district map should be examined to identify where potential conflicts exist now and may occur in the future. Opportunities to create more compatible "transitions" should be considered and zoning districts amended accordingly.

Vertical and Horizontal Mixed Uses. Mixed use (commercial and residential) in the three village centers is generally limited. Possible reasons for this may be the size of the buildings and current zoning restrictions. Most buildings in the core areas are one or two stories in height, and this limits opportunities for upper-floor residential. Additionally, the current zoning regulations do not favor vertical mixed use. On the other hand, there is a fair amount of horizontal mixed use activity in and around the village centers. Larger multifamily structures (apartments and condominiums) are typically at the edge of the core commercial areas. While vertical mixed use with residential over commercial can be highly beneficial to a village center (residential use provides built-in customers and security for the businesses), horizontal mixed use can be detrimental if improperly located. For example, if creating clusters of desirable and complementary businesses is a goal for Arlington Center, East Arlington, and Arlington Heights, placing a large residential building on the same frontage with

commercial uses can create a void and disrupt vibrancy of the district. Requiring retail uses on the first floor of buildings in the three village centers, and emerging commercial centers will help strengthen the business districts' walkability and other design objectives.

Green Urbanism

Green urbanism has been defined as the practice of creating more sustainable places through a series of adjustments to human environments and lifestyles focused on efficient land uses and consuming fewer resources. Green urbanism has many applications in Arlington to enhance both the built environment and open spaces. The following "tool box" should be considered as part of the revitalization and reinvestment process.

Urban Agriculture. Growing vegetables, fruits, herbs, and (possibly) meat for families, friends and customers in an urban environment can reinforce relationships between residents and businesses. It also can address sustainability issues such as open space conservation, self-sufficiency, improved nutrition, recreation, exercise, and saving on food expenses. Additionally, urban agriculture can provide new opportunities to put fallow lands to active use. Forms of urban agriculture that may be applicable in Arlington include: Grey water systems, community gardens, yard gardens, backyard homesteading, rooftop gardens, container gardens, edible landscapes, park gardens, and schoolyard gardens. These are all part of a growing trend in which individuals, families, and communities seek to grow or locally source as much of their own food as practical.

Green Infrastructure. An urban infrastructure network providing the techniques to address urban and climatic challenges through stormwater management, climate adaptation, less heat stress, better air quality, sustainable energy production, clean water and healthy soils, as well as the more anthropocentric functions such as increased quality of life through recreation and providing shade and shelter in and around towns and cities. Some common green urbanism applications to infrastructure include: green streets, infiltration parks, green plazas, pervious pavers and parking lots, and shade trees.

Green Buildings. "Green Buildings" refers to structures in an urban context that are environmentally responsible and resource-efficient throughout a building's life-cycle. Although new technologies are constantly being developed to complement current practices in creating greener structures, the common objective is that green buildings are designed to reduce the overall impact of the built environment on human health and the natural environment by:

- Efficiently using energy, water, and other resources.
- Protecting occupant health and improving employee productivity.
- Reducing waste, pollution and environmental degradation.

Some examples in an urban setting include green roofs, solar orientation, and natural light and ventilation.

D. RECOMMENDATIONS

6) Recodify and update the Zoning Bylaw (ZBL).

The current ZBL includes nineteen separate zoning districts, including six unique business and one industrial zone. The text of the ZBL is not always clear, and some of the language is out of date and often inconsistent. As a "first step" in any zoning revisions following a new master plan or major update of an existing plan, communities should focus on instituting a good regulatory foundation: structure, format, ease of navigation, updated language and definitions, and statutory and case law consistency. To illustrate issues with Arlington's present zoning, the Town requires a special permit for churches, schools, and day care centers, yet state law specifically exempts these uses from the special permit process.

7) Reduce the number of uses that require a special permit.

Excessive special permit zoning can create land use conflicts and hinder successful planning initiatives. Special permits are a discretionary approval process; the board with authority to grant or deny has considerable power, and unless that power is flagrantly abused, the board's decision will generally be upheld. Developers yearn for predictability. If the Town wants to encourage certain outcomes that are consistent with this Master Plan, special permits should be replaced with by-right zoning, subject to performance standards and conditions, wherever possible.

8) Reorganize and consolidate the business zoning districts on Massachusetts Avenue.

The six zoning districts (B1, B2, B2A, B3, B4, B5) along the length of Massachusetts Avenue are interspersed with six residential zoning districts. Addressing continuity of development and the cohesion of the streetscape, as well as density of development, is difficult. It appears that in some cases, parcels may have been placed in a particular district in order to shield them from becoming non-conforming uses (or to protect the buildings from becoming non-conforming structures). While there is nothing inherently wrong with having several business districts, it is sometimes difficult to connect the zoning on a given site with the district's stated purposes in the ZBL. As part of updating and recodifying the ZBL, the Town should consider options for consolidating some of the business districts.

9) Provide redevelopment incentives in all or selected portions of the business districts on Massachusetts Avenue, Broadway, and Medford Street

Arlington needs to unlock the development potential of business-zoned land, especially around the center of town. Increasing the maximum building height and lot coverage, and instituting mechanisms to reduce or waive off-street parking requirements would go a long way toward incentivizing redevelopment, as would a clear set of design guidelines. Applicants should be able to anticipate what the Town wants to see in the business districts and plan their projects accordingly.

10) Clarify that mixed-use development is permitted along sections of Massachusetts Avenue.

The B3 Village Business district and B5 Central Business district "encourage" mixed use development, but other business and residential districts along Massachusetts Avenue do not. The ZBL is vague regarding uses that are allowed in mixed-use projects. As part of the recodification and update process, the Table of Use Regulations should be clarified, and the ZBL should have specific standards for design, construction, and operation of a redevelopment project.

4. TRANSPORTATION

A. INTRODUCTION

A local transportation system should provide access to employment, shopping, recreation, and community facilities in a safe, efficient manner. When a transportation system operates well, it supports the community's quality of life, economy, and public and environmental health. Arlington's road network or capacity has barely changed in decades, yet a considerable amount of new traffic from Arlington and neighboring towns has placed an incredible strain on it, particularly on the main arterial routes, and in Arlington Center. Automobile traffic combined with bus routes, growing bicycle usage, and pedestrians create many issues that affect each of these transportation modes, and have effects of economic development, health and quality of life for residents.

In Arlington, the Board of Selectmen maintains responsibility for all public ways under the Town's jurisdiction. Arlington is served by a Transportation Advisory Committee (TAC), which assists the Board of Selectmen in studying and making recommendations on transportation-related issues. The TAC includes representatives from the Police Department Traffic Unit, the Planning Department, the Town Engineer, and resident volunteers.

B. EXISTING CONDITIONS

1. General Circulation, Network and Connectivity Characteristics

Arlington has a relatively complete network of streets, sidewalks, pathways, and trails. Most of the older neighborhoods in town were laid out on dense street grids, with narrow streets, sidewalks and shady trees, creating a very walkable environment. Some of the newer neighborhoods in the hillier northern sections of Arlington have a more suburban street pattern with wider rights-of way, curving roadways, cul-de-sacs, and fewer sidewalk and streetscape amenities. This form of street pattern is generally less walkable. These neighborhoods are also further from Massachusetts Avenue, making them less accessible on foot to public transportation and services.

Massachusetts Avenue is a former streetcar corridor that, until 1955, had dedicated track lanes with service between Arlington Heights and Harvard Square. This supported a mainly non-automobile environment along Massachusetts Avenue, with most development and business activity in Arlington based on proximity to Massachusetts Avenue. Once the streetcar infrastructure was removed and replaced with bus transit, traffic increased as the automobile became more popular. The corridor still functions as the spine of Arlington's road and transit system.

Arlington's village centers (Arlington Heights, Arlington Center, and East Arlington) and most residential neighborhoods are interconnected, with relatively few dead-end streets and cul-de-sacs. This "healthy" street network with short blocks and dense development gives Arlington the look and feel of a walkable community. Pedestrians and cars have direct paths to their destinations. The physical characteristics, geometric conditions, adjacent land uses, and current operating conditions of Arlington's principal roadways and intersections are described below. Table X.1 identifies the total

road mileage by functional classification. Map X.1 illustrates the basic components of Arlington's road system. 18

X.1. Classification of Roads in Arlington						
Class	Road Miles	Lane Miles				
Arterial	20.76	52.85				
Collector	10.05	20.09				
Local	89.99	1 <i>77</i> .18				
Total Miles	120.80*	250.12*				
Source: MassDOT Road Inventory Year End Report, 2012. * Does not include roads owned by State.						

KEY ARTERIALS

Five state and federal numbered routes and three key minor arterials serve Arlington. They include:

- **Route 2.** The Massachusetts Department of Transportation (MassDOT) classifies Route 2 as a principal arterial, a major east-west route that runs between downtown Boston and the New York state line at Williamstown. It is a primary commuting corridor to Boston from the northwest suburbs and Central Massachusetts. Within Arlington town limits, it is a limited access highway with three to four travel lanes in each direction. Exits in Arlington include 56, 57, 58, 59, and 60.
- Route 2A. Route 2A (Massachusetts Avenue/Mystic Street/Summer Street) runs east-west between Commonwealth Avenue in Boston and Interstate 91 in Greenfield, alongside or near Route 2. It generally provides more local access with lower traffic speeds than Route 2. In Arlington, Route 2A runs contiguous with Route 3 from the Alewife Brook Parkway/ Cambridge line, where it is classified as a principal arterial, and Summer Street, where it functions as a minor arterial.
- Route 3. Route 3 is a federal highway classified by MassDOT as a principal arterial. Route 3 runs north-south between the New Hampshire state line at Tyngsborough, MA and the Sagamore Bridge at the Cape Cod Canal. In Arlington, Route 3 starts on Mystic Street at the Winchester line in the north and joins Route 2A at Summer Street for the rest of the route to the Cambridge line. Route 3 consists of one wide lane in each direction (often used as two) along Massachusetts Avenue and one lane in each direction along Mystic Street. It is a major commuting route into the Boston area from Winchester, Woburn, Burlington, and beyond.
- Route 16. Route 16 is classified by MassDOT as a principal arterial south of Route 2A and as an urban major arterial north of Route 2A. It generally runs east-west between Bell Circle in Revere to the east and the intersection of Route 12/Route 193 in Webster, MA. Through Cambridge, however, Route 16 runs north-south along the Arlington town line, connecting Interstate 93 and Route 2. It generally consists of two travel lanes in each direction. While Route 16 does not run through Arlington, it has a significant impact on the traffic flow in the town.
- **Route 60.** The Route 60 corridor is an urban major arterial that runs east-west between Route 1A in Revere to the east and Route 20 in Waltham to the west. In Arlington, Route 60 originates on Medford Street at the Medford city line to the north, continues onto Chestnut Street and Mystic

¹⁸ Definitions and descriptions of roadway classifications including arterials, collectors and local roads are included in the Appendix.

Street, and along Pleasant Street to the Belmont line. It also connects with Interstate 93 and Route 2, and generally consists of one travel lane in each direction. Heavy vehicle traffic on Route 60 has increased significantly since hazardous cargo was prohibited on Boston's central artery.

- Lake Street. Lake Street is classified by MassDOT as an urban minor arterial. It runs east-west between Massachusetts Avenue (Route 2A/3) and Route 2. Composed of one travel lane in each direction, Lake Street experiences significant congestion during commuter and school peak periods.
- Mill Street. Mill Street is a short street that runs north-south between Massachusetts Avenue and Summer Street (Route 2A). Mill Street is classified by MassDOT as an urban minor arterial. Mill Street crosses the Minuteman Bikeway approximately 150 feet south of Summer Street and provides access to Arlington High School.
- Park Avenue. Park Avenue, including Park Avenue Extension, is classified by MassDOT as an urban minor arterial, running north-south between Summer Street (Route 2A) to the north and the intersection of Marsh Street/Prospect Street in Belmont to the south. Park Avenue generally consists of one travel lane in each direction, and it crosses over the Minuteman Bikeway 250 feet south of its intersection with Lowell Street/Westminster Avenue/Bow Street.

COLLECTOR ROADS

Collector roads provide more access to abutting land than arterials, and typically serve as a connection between arterials and networks of local roadways. Collector roadways in Arlington include, but are not limited to Gray Street, Hutchinson Road, Jason Street, and Washington Street.

CONGESTION POINTS

The primary east-west routes through and next to Arlington are Route 2, Massachusetts Avenue, Broadway, Mystic Valley Parkway, Summer Street, and Gray Street. The primary north-south routes include Route 16, Lake Street, Route 60, Mystic Street, Jason Street, Mill Street, Highland Avenue, Park Avenue, and Appleton Street. Route 2A/Route 3 and Route 60, plus the Minuteman Bikeway, intersect in Arlington Center, creating a congested intersection with high volumes of vehicular, bicycle, and pedestrian traffic. The intersection of Massachusetts Avenue/Route 16, just over the Cambridge line, is a major intersection that often creates significant congestion for vehicles entering or exiting Arlington via Massachusetts Avenue.

LOCAL ROADS

Most roads in Arlington are classified as local roads and provide access to abutting land, with less emphasis on mobility. Nearly 90 miles (75 percent) of the roads in Arlington are functionally classified as local roads. Roads owned by MassDOT or DCR are not included in the total mileage of accepted or unaccepted town roads.

- Accepted Town Roads. In total, Arlington has about 102 miles of town-accepted roads, which means the Town has accepted a layout of the street and owns the road in fee. By accepting the street, the Town takes responsibility for maintaining it.
- Unaccepted Roads. Arlington has an additional 22.77 miles of unaccepted streets, also known as private ways. An unaccepted street is owned in fee by those who use the way to access their properties. Private ways can be private by choice of the owners, but sometimes they remain

unaccepted because they do not meet local standards for roadway construction. As a matter of policy, Arlington plows private roads during the winter, but the owners remain responsible for road maintenance. Many of them are in deteriorated condition.

SIGNALIZED INTERSECTIONS

Arlington has a total of thirty-four traffic signals (Map X.2). When properly designed and supplemented with other necessary traffic control devices, e.g., signs and pavement markings, traffic signals improve safety and facilitate traffic flow by assigning right-of-way at intersections. Most traffic signals in Arlington fall within the Town's jurisdiction, but MassDOT and the Department of Conservation and Recreation (DCR) have jurisdiction over some intersections. Typically, the Town of Arlington has jurisdiction if it controls one or more of the roadways at an intersection, e.g., a state highway or another major arterial. A signal may be under DCR jurisdiction if located within or near DCR land. One additional signal will be installed as part of the Massachusetts Avenue Reconstruction Project, and one additional signal will be installed as part of the Arlington Safe Travel Project. Appendix X contains a list of intersections and their jurisdictions.

SCENIC BYWAYS

The Battle Road Scenic Byway is a federally designated Scenic Byway that runs from Alewife Brook Parkway (Route 16) in East Arlington, along Massachusetts Avenue through Arlington, Lexington, Lincoln, and Concord. The Byway follows the approximate route of British regulars in April 1775 that preceded the Battle of Lexington and Concord and sparked the beginning of the American Revolution.

2. Traffic Volumes and Trends

Traffic Data. MassDOT maintains permanent count stations on some Arlington roadways. The MassDOT Count Book provides volume count data up to the year 2009, though data availability varies by count location. Arlington traffic volumes recorded from 2006 to 2009 (the most recent years available) are shown in Appendix X, along with counts taken in the surrounding towns. ¹⁹ The traffic counts indicate that volumes on certain primary roadways in and around Arlington have decreased in the last few years. Outside the permanent count stations, MassDOT has also collected traffic counts on a variety of roadways to monitor traffic volumes where reconstruction or intersection improvements may be planned in the future.

During peak commuter periods, many of Arlington's roads and intersections experience significant congestion. Morning peak-period congestion occurs on Massachusetts Avenue approaching Route 16/Alewife Brook Parkway due to heavy delays at the intersection. This congestion reverberates back into East Arlington. According to town officials, traffic often backs up to and even on Lake Street. The intersection of Massachusetts Avenue/Mystic Street/Pleasant Street, at the heart of Arlington Center, also experiences peak-period congestion, which continues along Mystic Street to Chestnut Street and along Pleasant Street to Route 2. Other intersections that experience peak-period congestion include Park Avenue at Massachusetts Avenue and at Downing Square/Lowell Street in Arlington Heights, and Broadway at River Street and Warren Street.

According to the TAC, congestion often occurs on Mill Street and Lake Street near their intersections with the Minuteman Bikeway. The intersection of Mill Street and the Minuteman Bikeway is located

¹⁹ Vision 2020 also contains local traffic volume counts; Traffic counts were not collected in Arlington from 2003 to 2005.

less than 200 feet south of Summer Street (Route 2A). Pedestrian and bicycle traffic crossing Mill Street can reduce the efficiency of the Summer Street/Mill Street signal and cause congestion on Mill Street. The intersection of Lake Street and the Minuteman Bikeway is located approximately 200 feet west of the signalized intersection of Lake Street/Brooks Avenue. Similar to the Minuteman Bikeway's crossing at Mill Street, users of the Minuteman Bikeway crossing Lake Street can create inefficiency at the signal at Lake Street/Brooks Avenue, resulting in additional congestion on Lake Street.

TAC members say that additional development in Cambridge and Belmont may cause additional congestion along Route 2, Route 16, Lake Street, and Massachusetts Avenue in East Arlington.

3. Bicycle and Pedestrian Facilities

Sidewalks. Arlington has an extensive sidewalk network that provides safe and convenient travel for pedestrians. All of the town's major corridors have complete sidewalks as do all but a few neighborhoods. According to a 2003 study, areas with limited sidewalks are primarily in the northwest part of town (Turkey Hill neighborhood), areas around Ridge Street and the Stratton School, and in the southwest areas of Little Scotland and Poets Corner. In addition to these neighborhoods, private ways generally lack sidewalks, according to town officials. In the older neighborhoods, a planting strip with mature trees usually separates the sidewalks from the travel lane, thus giving shade and safety to pedestrians.

Along Massachusetts Avenue and Broadway, there are several wide sidewalk segments that support outdoor dining and provide pedestrian amenities. However, both corridors also have extensive curb cuts in some locations. This significantly reduces the pedestrian environment and presents a safety concern.

The Arlington Transportation Assessment Study (2002) reported the condition of sidewalks in most areas of town as generally good or fair. At the time, only a few streets were found to have poor sidewalks. However, sidewalk conditions in some areas appear to have deteriorated since the study was completed. The Arlington Department of Public Works (DPW) prioritizes and constructs or repairs sidewalks and accessible ramps each year. According to town officials, new sidewalks will be constructed in 2014-2015 on portions of Gray Street where there are currently none provided.

Pathways. The Minuteman Bikeway is an 11-mile shared-use path that provides a dedicated facility for pedestrians and bicyclists to travel through Bedford, Lexington, Arlington, and into Cambridge. The Arlington section of the bikeway is three miles in length, and connects many important town parks, recreational areas, and cultural/historic sites, including: the Arlington Reservoir, Old Schwamb Mill, the Summer Street Sports Complex/Ice Rink, Wellington Park, Buzzell Field, Dallin Museum/Whittemore Park, Spy Pond, and the Thorndike/Magnolia Fields. The path runs roughly parallel to Massachusetts Avenue and provides connections to the town's major business districts in Arlington Heights, Arlington Center, and East Arlington.

The Minuteman Bikeway provides a convenient intermodal connection to the MBA Red Line at Alewife Station, and serves as a primary commuter cycling route. It connects with numerous paths and trails, including the Alewife Linear Park/Somerville Community Path, the Fitchburg Cut-off Path, the Alewife Greenway, the Narrow-Gauge Rail-Trail, and the Reformatory Branch Rail-Trail.

As of 2014, the Minuteman Bikeway does not have lighting, which may deter its use in the winter months when the sun sets before the end of the workday. Physically, the path is in need of some repair.

Bike Facilities. According to bicycle network maps from the Arlington Bicycle Advisory Committee, ²⁰ Arlington has bicycle lanes or wide shoulders on portions of Massachusetts Avenue, Mystic Valley Parkway, and Park Avenue. The Town evaluates all major roadways for bike lane appropriateness whenever they are resurfaced. Shared lane markings, or "sharrows", are provided on some roadways, including portions of Massachusetts Avenue.

According to the 2012 Vision 2020 survey, more respondents supported additional bike lanes and bike routes (46.5 percent) than opposed them (29.1 percent). Except for the Minuteman Bikeway, the Town's network of dedicated bicycle facilities (bicycle lanes and paths) is limited and incongruous. An extension of the network as well as safe, continuous connections between neighborhoods and key bicycle thoroughfares may help to increase the number of Arlington residents that commute by bicycle.

4. Parking Facilities

Arlington Center. In May 2013, Arlington's Transportation Advisory Committee (TAC) conducted a parking study in Arlington Center to determine where and when parking demand is highest. The study identified a total of 565 on- and off-street public parking spaces (Table X.2). This includes on-street spaces on Massachusetts Avenue between Academy Street/Central Street and Franklin Street; Broadway between Franklin Street and Alton Street; Alton Street south of Belton Street; Medford Street south of Compton Street (St. Agnes Church); Pleasant Street between Massachusetts Avenue and Maple Street/Lombard Road; and Swan Street. The off-street public parking inventory includes Broadway Plaza, the Library Parking Lot, Russell Common Municipal Lot, and the Railroad Avenue Lot. In addition to the available public parking spaces, there is also a significant amount of private parking in and around Arlington Center. These parking spaces are used by employees and visitors to the approximately 365,000 square feet of businesses in Arlington Center.

Table X.2. Arlington Center Parking Inventory								
Type of Space	On Street	Public Lots	Total					
15 Minute	5	0	5					
One Hour	103	0	103					
Two Hour	63	0	63					
Three Hour	0	208	208					
Permit	0	123	123					
Unrestricted	38	0	38					
Handicap	4	15	19					
Taxi	4	0	4					

²⁰ N.B. The Arlington Bicycle Advisory Committee (ABAC) was appointed by the Board of Selectmen in 1996 to advise the Town on local bicycling conditions. The committee promotes all forms of safe bicycling on town roadways and the Minuteman Bikeway, from recreational riding to using the bicycle for transportation and errands.

Zipcar*	0	2	2
Total	217	348	565
Source: Arlington	Transportati	on Advisory	Committee

Study. May 20, 2013

The study concluded that weekday parking demand peaks at 1:00 PM, when most on-street spaces are occupied but spaces are generally available in the public three-hour parking lots; and at 6:00 PM, when on-street parking and the public lots approach capacity. On Saturdays, demand for on-street parking exceeds capacity and the public lots approach capacity at the midday peak of 11:00 AM At the evening peak period, 7:00 PM, the on-street spaces are near capacity while the public lots have some parking availability. The study identifies strategies to maximize the efficiency of available public parking, such as improving wayfinding signage and internal signage and converting all on-street spaces to two-hour spaces.

East Arlington. According to a recent parking inventory,²¹ the East Arlington commercial center has approximately 945 parking spaces, including approximately 250 privately owned off-street parking spaces at the Crosby School, Cambridge Savings Bank (180 Massachusetts Avenue), Summit House, Trinity Baptist Church, and others. These privately-owned spaces are not available for use by the general public. In addition to private spaces, there are roughly 600 on-street parking spaces on side streets located within walking distance of the commercial center. Ninety-six on-street parking spaces along Massachusetts Avenue are designated for customers, but many are occupied by employees, leaving fewer convenient spaces for customers. These 96 spaces are the only spaces in the district that are intended for customer use. The 945 total spaces are used by approximately 103,000 square feet of residential and commercial uses in East Arlington. In 2010, the TAC worked with business owners and employees in East Arlington to prepare a "Where to Park" guide to help preserve the best on-street parking spaces for business customers.

Arlington Heights. Parking supply for Arlington Heights was estimated using aerial imagery. Approximately 200 parking spaces were identified along Massachusetts Avenue between Drake Road and Appleton Street, and an additional 33 parking spaces on Park Avenue between Paul Revere Road and the Arlington Coal and Lumber driveway. On-street spaces are typically 2-hour parking, with some spaces designated as handicap parking or taxi stands. There are approximately 525 off-street parking spaces, primarily located behind or adjacent to private properties along Massachusetts Avenue and Park Avenue. The combination of the on-street and off-street parking spaces equal a total of approximately 758 parking spaces.

Arlington Heights includes approximately 422,000 square feet of development. The individual parking demand of the individual homes, businesses, and other land uses is 969 spaces; however, Arlington Heights is a mixed-use area with a large variety of land uses. The mixed-use nature of the neighborhood allows for visitors to the area to make multiple trips and for nearby residents to walk to nearby businesses without driving. The variety of businesses in Arlington Heights means that the peak

Walker Parking Arlington Commercial Development Plan Strategies Assessment Phase II - East Arlington Supplement, October 29, 2009, Larry Koff & Associates, Todreas Hanley Associates, Walker Parking Consultants.

demand for each business is not likely to occur at the same time; for example, a restaurant would not have the same peak demand time as a medical office, and parking spaces can be "shared" between these two land uses.

Parking Rules and Regulations. Arlington typically restricts parking on major roadways to two hours, but in some areas it is restricted to one hour or less. On residential streets, daytime parking is typically unrestricted. Overnight parking is not permitted except by special permit.

Arlington's zoning imposes flexible off-street parking and loading requirements for residential and business districts, with alternatives to providing all spaces on the site. The off-street parking regulations in Section 8.01 are adequate for typical commercial uses in the business districts, e.g., one space per 300 gross sq. ft. of retail floor area, one space per four seats in a restaurant, and one space per 500 gross sq. ft. of office floor area. The regulations provide for shared parking between adjacent uses and modified off-street parking requirements if enough satellite parking can be secured within 600 feet or if adequate public parking is available within 1,000 feet. In addition, the regulations include basic design standards such as restricting parking and driveways in front of buildings, landscaping and paving standards, and bicycle parking in developments subject to Environmental Design Review.

Zipcar. Zipcar is a car rental company that specializes in ultra-short-term rentals. Zipcar charges an annual fee, plus a demand-driven hourly charge. Zipcar has eight locations in Arlington with a capacity for fourteen Zipcars. The Zipcar stations are mostly located along Massachusetts Avenue and more concentrated in East Arlington, close to the Cambridge line. While Zipcar will not replace a personal vehicle in most households, it does allow residents without a personal vehicle to make periodic regional trips.

5. Traffic Safety

VEHICLE, PEDESTRIAN, AND BICYCLE ACCIDENTS

According to MassDOT, a total of 1,664 crashes occurred in Arlington between 2008 and 2010, or an average of 13.8 crashes per mile. For comparison, the bordering municipalities of Cambridge, Lexington, and Somerville average 17.1, 4.2, and 9.7 crashes per mile, respectively. These figures are per roadway mile, not vehicle miles traveled, so it is reasonable to expect a higher ratio in communities that experience heavier traffic volumes than Arlington, such as Cambridge, or lower traffic volumes than Arlington, such as Lexington. Of the 1,664 crashes reported by MassDOT, 37 (2.2 percent) involved pedestrians, and 57 crashes (3.7 percent) involved cyclists. A significant portion of crashes involving pedestrians occurred around Arlington Center. Most crashes involving bicycles occurred along Massachusetts Avenue. Of the total crashes, 294 (17.7 percent) resulted in personal injury.

MassDOT lists the intersection of Massachusetts Avenue/Mystic Street/Pleasant Street in Arlington Center in its most recent statewide 200 Top Crash Locations Report (September 2012). The intersection was ranked 95, with sixty-eight crashes from 2008-2010. The Arlington Safe Travel Project (MassDOT Project #606885) aims to reduce the number of crashes of all types within Arlington Center.

The Arlington Police Department identifies high crash location "hot spots" each year to help show where the most crashes occur within the town. These locations are mapped in Map X.3, and in 2013 included Arlington Center; Route 60/Mystic Valley Parkway; Pleasant Street/Gray Street; Mystic Street/Summer Street; Massachusetts Avenue at Forest Street, Park Street, Paul Revere Road, and the

entire length of Massachusetts Avenue in East Arlington. Moreover, after a high number of fatal pedestrian crashes in the 1990's, greater emphasis was placed on pedestrian safety, including more visible marked crosswalks and more enforcement.

SAFE ROUTES TO SCHOOL

Arlington was one of the first two towns in the country to start a Safe Routes to School program. The state chose Dallin Elementary School as a pilot site. In October 2011, the Town of Arlington and MassDOT completed access and safety improvements for pedestrian and bicycle access to Dallin Elementary School using Safe Routes to School funds. The project introduced infrastructure enhancements to slow traffic and upgrade crosswalks and sidewalks. It also added new crosswalks across roadways where no crossings previously existed.

In 2014, all of the elementary schools and the Middle School participate in the program. Each school has assessed walking routes and made some safety improvements to promote walking to school. A Safe Routes to Schools Task Force was formed, including representatives from each participating school, the Arlington Police Department, Arlington Public Schools Health and Wellness Department, and the Arlington Transportation Advisory Committee. The Safe Routes to School task force organizes Walk/Bike to School Days, pedestrian safety training, and other walking and biking events at all of the participating schools. Together, the neighborhood locations of Arlington's elementary schools and the Safe Routes to School program have removed the need for school buses at all elementary schools except for Bishop School. Students who cannot walk or ride a bicycle to school may be able to take MBTA buses. Many children are dropped off by car, however, causing congestion around schools in the morning and mid-afternoon.

WINTER SNOW/ICE REMOVAL

The Arlington DPW plows all roadways in the town as well as the Minuteman Bikeway. Residents and business owners are responsible for clearing the sidewalks adjacent to their properties, and the MBTA is responsible for clearing snow and ice from bus stops.

6. General Travel Patterns and Modal Splits

Household Travel Patterns. Modal split describes the percentage of trips that are made by each of the different transportation modes, e.g., driving alone, driving with others (shared rides, carpooling), public transit, walking, or bicycling. Arlington has an average of 2.24 people per household and 1.46 vehicles per household, according to the 2006-2010 American Community Survey. This translates to one vehicle per 1.5 people in every household, which is lower than the regional average and consistent with the high level of commuting by public transit and bicycle.²² Thirty-nine percent of Arlington's commuters work in Boston and Cambridge, and 80 percent of these commuters live within one-quarter mile of a bus stop; an acceptable walk to a transit stop. Forty percent of Arlington residents who commute to Cambridge or Boston use bus transit, though a greater number, 49 percent, drive alone.²³

²² CTPP Profile of Arlington (Socio-Demographic Data and Transportation Mode Shares)

²³ CTPS Report on Alewife Feeders from Arlington (2009), http://www.ctps.org/Drupal/data/pdf/studies/highway/alewife/Improvements_MBTA_Feeder_Bus_Routes.pdf

Commuting to Work. The top two destinations for Arlington commuters are Boston and Cambridge (see Table X.3). In third place, is the internal commute within Arlington. The number of residents working in town grew between 2000 and 2010. Additionally, fewer Arlington residents commuted to Boston in 2010 than in 2000, and more residents commuted to Cambridge, Lexington, and Medford.

Tab	Table X.3: Top Communing Destinations for Arlington Residents								
Com	mute Destination	Avg. Commute	Census 2000	ACS 2006-10	% Change				
1.	Boston	27 minutes	5,095	4,942	-3.0%				
2.	Cambridge	21 minutes	4,048	4,262	5.3%				
3.	Arlington	N/A	3,450	3,640	5.5%				
4.	Lexington	12 minutes	849	932	9.8%				
5.	Burlington	19 minutes	753	821	9.0%				
6.	Waltham	18 minutes	1,1 <i>77</i>	769	-34.7%				
7.	Medford	14 minutes	428	643	50.2%				
8.	Somerville	21 minutes	602	603	0.2%				
9.	Woburn	16 minutes	370	489	32.2%				
10.	Newton	29 minutes	544	468	-14.0%				
Sour	ce: U.S. Census Bureau	, Census Transportation	Planning Packag	je (CTPP).					

Of those who work in Arlington, more live in Arlington than any other community (see Table 3.4). Arlington residents make up about 37 percent of all employees of local establishments. Between 2000 and 2010, the number of Arlington residents working in Arlington increased 5.5 percent, but the number of employees commuting from Boston, Cambridge, Medford, and Lexington also rose significantly, which suggests that more residents of other municipalities are commuting to work at Arlington businesses.

Con	mute Origin	Commute Time	2000 Census	2012 ACS	% Change
1.	Arlington	N/A	3,450	3,640	5.5%
2.	Boston	22 minutes	394	537	36.3%
3.	Cambridge	18 minutes	286	483	68.9%
4.	Medford	14 minutes	279	480	72.0%
5.	Somerville	17 minutes	432	433	0.2%
6.	Lexington	15 minutes	175	319	82.3%
7.	Woburn	16 minutes	172	270	57.0%
8.	Lowell	28 minutes	57	220	286.0%
9.	Waltham	18 minutes	134	214	59.7%
10.	Belmont	9 minutes	161	164	1.9%

Commuting Time. On average, Arlington workers spend 22 minutes commuting to work. Workers with commutes to places in Lexington, Waltham, and Medford have shorter-than-average commutes due to proximity, the "reverse commute" factor, and several choices for less congested routes. Workers

commuting to Boston or Newton experience higher-than-average commutes due to congestion or, in the case of Newton, the lack of a direct arterial route.

Means of Travel. The percentage of Arlington residents who drove to work alone decreased slightly between 2000 and 2010, but still represent about two-thirds of Arlington's employed labor force (see Table X.5). The percentage of residents carpooling or using public transportation also decreased. More Arlington residents walked or cycled to work in 2010 than in 2000. In fact, the mode share of bicycle commuters more than doubled, from 0.9 percent in 2000 to 2.1 percent in 2010. Lastly, Arlington has witnessed noticeable growth in the number of residents working at home.

Table X.5: Means of Transportation to Work									
Means of Transportation	Census 2000	%	ACS 2006-2010	%					
Drove alone	16,035	67.6%	15,437	66.5%					
2-person carpool	1,335	5.6%	1,158	5.0%					
3+ person carpool	290	1.2%	251	1.1%					
Public Transportation	4,205	17.7%	3,887	16.7%					
Bicycle	225	0.9%	489	2.1%					
Walk	430	1.8%	552	2.4%					
Taxi, motorcycle, other	79	0.3%	157	0.7%					
Work at Home	1,115	4.7%	1,296	5.6%					
Total	23,715	100.0%	23,277	100.0%					

Source: U.S. Census Bureau, CTPP.

The percentages represented in Table 3.5 reflect the longest single mode used when commuting to work, and do not reflect the shorter legs of a multi-modal commute. For example, a person who rides a bike to Alewife Station, then commutes to Downtown Crossing, will be counted as a transit trip, and not a bicycle trip.

Public Transportation. According to the American Community Survey (ACS) 3,887 Arlington residents (16.7 percent of the population) commuted to work using public transit each day. The primary means of public transit in Arlington is MBTA bus service. The Alewife MBTA Station is not in Arlington, but is a short drive, walk, or bike ride for many residents.

- **Bus Transit.** Eleven MBTA bus routes run through Arlington. Most connect to the Red line via Alewife Station (#62, #67, #76, #79, #84, #350 buses) or Harvard Station (#77 and #78 buses). The #80 and #87 buses connect to the Green Line at Lechmere Station; the #87 bus also connects to Davis Square Station. From Lechmere, the Green Line provides connections to Downtown Boston, Longwood area, Brookline, Brighton, and Newton, and Jamaica Plain. The #77 bus provides the most frequent service to the MBTA Red Line, leaving Arlington Heights with peak hour weekday service approximately every eight minutes and weekend service approximately every ten minutes. The #350 bus runs through Arlington between Alewife Station and Burlington, a major employment and retail center.
- Typical daily boarding figures for the #62, #67, #76, #77, #79, and #350 bus routes is shown in Table X.6.

Table X.6.	Typical Boardings on B	us Routes through Arlingt	ton	
MBTA Bus Route	Municipalities Served	Typical Daily Inbound Boardings (Weekday)	Typical Daily Outbound Boardings (Weekday)	Typical Daily Total Boardings (Weekday)
#62	Lexington, Arlington	922	722	1,644
#67	Arlington	312	276	588
#76	Lexington, Lincoln	560	431	991
#77	Arlington	3,635	4,004	7,640
#79	Arlington	684	577	1,261
#350	Arlington	665	989	1,653
Source: MB	TA Ridership and Servi	ce Statistics, 14th Edition	(2014), data as of Fall	2012

It should be noted that Table X.6 does not encompass all of the bus routes available to Arlington residents, just the ones listed by the Battle Road Scenic Byway Corridor Management Plan.

Town officials noted that bus routes through Arlington are often delayed and have irregular headways due to congestion on Massachusetts Avenue and around Alewife Station, including the intersection of Massachusetts Avenue/Route 16 in Cambridge, locations not under the Arlington's jurisdiction.

- Rapid Transit. There are no rapid transit stations in Arlington, but the Alewife Station in Cambridge is only two miles southeast of Arlington Center and 1000 feet southeast of the Arlington town line. Alewife Station is a terminal station on the MBTA Red Line, which connects with Somerville, Cambridge, Quincy, Braintree, downtown Boston, south Boston, and Dorchester.
- The Green Line Extension (GLX). The GLX is scheduled to be completed in 2019, and will extend the Green Line to College Avenue / Tufts University in Medford. This new terminus will be within 1 mile of East Arlington. Possible future extensions to West Medford have been tabled, and Arlington TAC members stated that the Town supports an extension to Route 16 at Boston Avenue in Medford, which would be within a quarter mile of Arlington's northeast border.
- **Commuter Rail.** Arlington is located within 1-2 miles of four MBTA commuter rail stations in Belmont, Winchester, Cambridge, and Medford. Trains from these stations connect to North Station in Boston, and offer two-direction service throughout the day.
- Intercity Bus Service. Go Buses offer bus service up to eight times a day to New York City from Alewife Station, with one stop in Newton.
- Para-transit Services. Several transportation options exist for senior citizens and people with disabilities. The Arlington Council on Aging (COA) offers Dial-a-Ride Taxi (DART) service for Arlington seniors age 62 or older, income-eligible seniors 60-62 years, and residents with disabilities. The service costs \$15 per year and \$3 per one-way trip. According to Arlington's 2011 Vision 2020 Annual Survey, 2.7 percent of those surveyed used the DART service and 38.1 percent of seniors know about it but have not used it. The COA also operates a Senior Center Van, a Medical Appointment Van, and medical escort services. The Ride is a para-transit service provided by the MBTA that offers door-to-door shared-ride transportation for eligible people that cannot access fixed-route transit because of physical, cognitive, or mental disability. It is available 365 days

per year from 5:00 AM to 1:00 AM in 60 cities and towns, including Arlington. Fares are \$3 one-way as of January 6, 2014.

C. ISSUES AND OPPORTUNITIES

Drawing on feedback at the World Café event in October 2012 and at various community meetings, Arlington residents have identified congestion and pedestrian safety as significant transportation issues. Many participants are concerned that traffic congestion was having a negative impact on business development, pedestrian and bicycle safety, and transit efficiency. Through follow up meetings with Arlington town officials, including members of the TAC, Department of Planning and Community Development, Engineering Division, Police Department, and Department of Public Works, several transportation challenges, opportunities, and potential improvements were identified.

1. Traffic Congestion

Traffic congestion can be a significant negative factor to both personal productivity and the economic health of a community. Traffic congestion occurs when the demand placed on a transportation facility exceeds its capacity. This can happen for many reasons, both recurring and nonrecurring. Nonrecurring congestion usually responds to random events such as crashes and inclement weather. Recurring congestion is often the result of a fundamental lack of roadway or intersection capacity.

LOCAL AND REGIONAL CONGESTION CONTRIBUTORS

Several local and regional factors have been identified as contributing to traffic congestion in Arlington:

- Local commuting patterns contribute to overall congestion. Arlington generally has lower commute times, higher use of public transit and non-vehicle means of travel, and less daily mileage per household than its neighbors to the west. However, commuters to and from Arlington are still likely to be driving alone to work.
- Traffic congestion near most schools during school peak hours results from pick-up or drop off activity.
- North-south arteries in Arlington often experience traffic congestion as a result of congestion on primary east-west corridors including Massachusetts Avenue, Broadway, and Route 2.
- Congestion along Route 16 causes bottlenecks at key intersections and back-ups on Massachusetts Avenue and Broadway.
- Existing and anticipated development in Cambridge, Somerville and Belmont will likely contribute to increased traffic congestion in Arlington.

MASSACHUSETTS AVENUE CORRIDOR AND INTERSECTIONS

■ Western Segment – Slow traffic due to volume on this two-lane section of Massachusetts Avenue west of Arlington Center is the main cause of congestion here. Congestion on Park Avenue at the intersection of Massachusetts Avenue is due to the lack of a protected left-turn phase onto Massachusetts Avenue. This has been identified as a safety issue for both drivers and pedestrians.

- Central Segment Congestion in Arlington Center is largely attributable to the Pleasant Street/Mystic Street intersection. This is being addressed by the Arlington Center Safe Travel project which will also provide a solution to the unsafe and inconvenient crossing of the Minuteman Bikeway. The goal is to improve traffic operations and pedestrian safety by shortening crosswalk lengths, coordinating signals, and increasing turning lane capacity.
- Massachusetts Avenue/Jason Street/Mill Street is another congested intersection near Arlington Center. Jason Street is not designed to handle the amount of commuter traffic it is now carrying. The redesign of this intersection is underway and will include lane reconfiguration and signal improvements to address the high crash rate at the intersection.
- Massachusetts Avenue/Water Street poses a pedestrian safety issue, due to the lack of a traffic signal and the high pedestrian use owing to the proximity of the library, Town Hall, businesses and restaurants.
- **Eastern Segment** Congestion on Massachusetts Avenue in East Arlington during the morning peak hour is primarily due to inadequate capacity at the intersection of Massachusetts Avenue and Route 16 in Cambridge. The ongoing **Massachusetts Avenue Rebuild Project** (MassDOT Project #604687) will reconstruct the corridor between the Cambridge city line and Pond Lane, a distance of approximately one mile. This project will improve pavement conditions and mobility for vehicles, pedestrians, and bicyclists by improving traffic signal timing. It will also enhance safety and streetscape conditions in East Arlington, and improve capacity the Lake Street intersection.

PLEASANT STREET CORRIDOR

Congestion on the Pleasant Street corridor between Massachusetts Avenue and Route 2 may be attributed to insufficient capacity on Pleasant Street and a heavy demand for travel between the two east-west roadways. Capacity limitations are tied to the directional commuting; southbound (AM) and northbound (PM). The Arlington Center Safe Travel Project may reduce congestion at the intersection by improving traffic signal timing.

MILL STREET CORRIDOR

Mill Street approaching Summer Street is congested particularly during the AM and PM peak hour and because of the nearby Arlington High School, and Minuteman Bikeway crossing just south of Summer Street.

LAKE STREET CORRIDOR

Lake Street traffic congestion between Massachusetts Avenue and Route 2 is attributable to several factors, including congestion on Massachusetts Avenue, traffic at the nearby Hardy Elementary School, the Minuteman Bikeway crossing just south of Massachusetts Avenue, and the on/off ramp at Route 2. It is anticipated that congestion will be reduced with the planned improvements to the intersection at Massachusetts Avenue. However, new development in and around Alewife may increase the number of cars using Lake Street, and those trying to avoid Route 16.

2. Pedestrian Facilities, Access and Safety

SIDEWALK NETWORK AND CONDITIONS

Arlington is generally well connected by sidewalks on residential streets and in most business districts. Older neighborhoods in Arlington usually have 4-foot sidewalks, which although aging are in

relatively good condition. Some neighborhoods, however, are underserved by sidewalks, such as the residential area between Gray Street, Buena Vista Road, Hawthorne Ave., and Highland Avenue. Additionally, many street in the northeast neighborhoods in town have limited or no sidewalks.

The Public Works Department prioritizes construction and repairs for new sidewalks and handicapped ramps each year, including pavement markings and crosswalks. Arlington is also an active participant in the **Safe Routes to School Program (SRTS).** However, according to SRTS officials, additional funding from the State is likely not available in the near term because the Dallin school sidewalk improvements were recently completed, and towns typically receive reconstruction funding for one project only.

PEDESTRIANS AT INTERSECTIONS

Broadway/Warren Street and Broadway/Bates Road/River Street. These intersections have particularly poor sidewalks, signal timing, and irregular intersection angles. There is only one crosswalk at the intersection of Broadway/Warren Street, and the wide angle of the intersection permits high speed turning from Broadway eastbound onto Warren Street. There are no sidewalks along any of the edges of the triangular park located between Broadway, Warren Street, and River Street, and there are no marked crosswalks leading to the park, causing pedestrians to divert their routes around the park, rather than being able to walk through it.

Mystic Valley Parkway/Route 60 (Medford Street), Congestion and lack of safe pedestrian crossings at this intersection is a priority issue for the town. Two major arterial roads merge together with a pedestrian trail at a dual rotary intersection. The rotary itself is under DCR jurisdiction. There is only one safety island, no crosswalks, and poor visibility.

3. Bicycle Facilities, Access and Safety

MINUTEMAN BIKEWAY

- The bikeway is divided by Massachusetts Avenue and Mystic Street in Arlington Center. The Arlington Center Safe Travel Project is currently addressing this issue.
- There are segments in poor or failing condition; some segments have worn pavement and edge erosion.
- The lack of lighting along the bikeway is an impediment to its use at nights and in winter months.
- Crossings of the bikeway at Mill Street and Lake Street create safety concerns and are attributable to traffic congestion on those roads.
- Though near or directly in business districts, there is a lack of physical and cultural connections between the bikeway and commercial establishments, posing a lost economic development opportunity.

INTERSECTION ENHANCEMENTS FOR BICYCLES

There are several intersections in Arlington which are difficult to cross on a bicycle. One key issue is that traffic actuated signals are not actuated by bicycles, especially on side streets. Some major intersections are in particular not bicycle friendly, including: Massachusetts Avenue/Broadway; Massachusetts Avenue/Route 16; Broadway/Route 16; and Foster Street/Linwood/Massachusetts Avenue.

CORRIDOR ENHANCEMENTS FOR BICYCLES

- Arlington is a key link in the Minuteman Bikeway. Many residents of Arlington use the path, as well as major roadways, to bicycle to and from work. Bike connectivity from the Bikeway and arterials such as Massachusetts Avenue to residential neighborhoods is a high priority. Some roadways connecting these bicycle routes residential neighborhoods, such as Lake Street and Pleasant Street, are narrow and difficult for bicyclists to maneuver.
- Bicycle lanes will not be provided between Pond Lane and Swan Place after the Massachusetts Avenue rebuild project and the Arlington Safe Travel Project are completed, creating a disconnect between East Arlington and Arlington Center.

4. Bus Transit Facilities and Access

Several issues and opportunities for bus transit improvement were identified including the following:

- MBTA bus service does not serve some neighborhoods such as Turkey Hill. In addition, some bus routes run limited service during off peak times. There is also a lack of direct bus service to Belmont, and Medford Center.
- MBTA buses stack together during peak periods due to congestion and heavy boarding/alighting activity. Routes #77 and #87 are both affected by congestion along the bus routes.

5. Parking Issues

- **East Arlington** East Arlington does not have a large public lot for customers or employees, who must rely on street parking on Massachusetts Avenue and residential side streets. The Capitol Theatre and East Arlington restaurants create parking demand in evening hours.
- **Arlington Heights** This area has not been the subject of a parking study, but, according to Town officials, parking issues persist in the area. A parking study may provide a fresh look at existing parking conditions, identification of areas where parking is needed and where parking is abundant, and recommendations for future parking management in Arlington Heights.
- Arlington Center The Town is currently undertaking a study of parking in Arlington Center to look at ways to manage the existing parking supply better, including optimal separation of long and short term parking for customers, employees, and students. The ongoing study should provide specific recommendations for improved management practices with regard to public on-street parking and off-street timing and costs.

GENERAL PARKING CONSIDERATIONS

- There is a general lack of wayfinding signage for public parking in the commercial districts. This is a potential safety issue with motorist confusion, causing motorists to circle for on-street parking because they are unaware of the location of off-street lots, in turn creating unnecessary pollution.
- Town officials noted that pedestrian access between parking areas and nearby businesses are often inadequate, indirect, or not ADA-compliant.

■ Town officials noted that motorists parking on residential streets near Alewife Station, before walking to the station to access the MBTA. This practice makes it more difficult or even impossible for residents to find a parking space on their own street. Some residents have also expressed the desire to be able to park on the street overnight, which is currently prohibited.

D. RECOMMENDATIONS

- 1) Create safer pedestrian and bicycle conditions.
- Consider installing a pedestrian hybrid signal at the intersection of Massachusetts Avenue/Water Street to allow for safe pedestrian crossings across Massachusetts Avenue. If installed, the hybrid beacon should be coordinated with nearby intersections.
- Initiate a complete and safe sidewalks plan for all of Arlington, in coordination with the Safe Routes to School (SRTS) program.
- Identify unsafe pedestrian crossings throughout Arlington, including the intersections of Broadway/Warren and Warren Street between River Street and Broadway, and along the Mystic Valley Parkway. Crossing need to be improved with signals, signage, or modifications to the road design.
- 2) Improve conditions, access, and safety along the Minuteman Bikeway.
- Address ADA requirements for the Bikeway, improved lighting, signalization at street crossings, including raised crossings for the bikeway to give more visibility to pedestrians and bicyclists, and speed control to drivers.
- Make efforts to provide safe connections between the Minuteman Bikeway and commercial centers in East Arlington, Arlington Center, and Arlington Heights. Corridors should be identified and equipped with wayfinding signage to direct path users to and from the path, including a map directory of local businesses along the path.
- Add bicycle parking and access into commercial zoning regulations along the bikeway and in adjacent business districts.
- Review the extension of the regional "Hubway" bikeshare program into Arlington.
- Include bicycle friendly design and technology into all new road projects, such as bicycle detection at intersections, queue jumping, longer signals where needed, and uninterrupted bicycle lanes.
- Bicycle lanes should be added on Massachusetts Avenue from Swan Place to Pond Lane to connect lanes created by the Massachusetts Avenue Rebuild Project and the Arlington Safe Travel Project.
- Provide contra-flow bicycle lanes on high-demand one-way streets, such as Swan Street westbound, Foster Street northbound, and River Street northbound.
- Support a carpooling campaign for those children who are not bussed to school. Continue to support and expand the safe routes to school program to encourage more biking and walking to school.

- 3) Work with the MBTA to reduce bus bunching, and improve the efficiency of bus service, including the provision of queue jump lanes, bus-only lanes, and/or bus stops at curb extensions.
- 4) Address parking issues, especially in the commercial centers.
- Consider a parking study in the East Arlington neighborhood to determine whether there is a parking deficiency and to develop strategies to improve parking management in the area.
- Implement the recommendations in the 2014 Arlington Center parking study, as appropriate, and continue to monitor parking trends in the area to determine if these measures were effective.
- Wayfinding signage for public parking lots is needed, including maps and parking limits to inform customers and improve the visitor's experience. In addition, information on parking areas, regulations, and policies should be provided on the Town's website.
- The Town should review its existing parking policies, including overnight residential street regulations and unregulated residential street parking, and determine strategies to curb non-resident commuters who park on residential roadways. The Town should consider fee-based resident overnight parking for residents that can demonstrate a special need, and daytime resident parking regulations that preclude the use of Arlington streets as parking facilities for out-of-town commuters, such as a resident sticker program.
- Consider assuming more responsibility for private streets to bring them up to the same general condition of public ways.
- Initiate a coordinated study to further extend the Green Line Extension into West Medford, East Arlington, or Arlington Center.
- 5) Coordinate efforts to reduce traffic congestion

There are several specific locations and times of day where traffic congestion is problematic in Arlington. The morning and evening rush hours and school runs add additional cars and busses to main arteries and secondary streets alike. In addition key intersections, at the edge of town, become bottlenecks to traffic flow, causing major back-ups, primarily on Massachusetts Avenue and Pleasant Street. Concentrated efforts to relieve congestion should be addressed.

- 6) Work with MassDOT to improve the efficiency of the signal at Massachusetts Avenue/Route 16 in Cambridge, just east of the Arlington Town Line.
- 7) Massachusetts Avenue Corridor and Intersections
- Make improvements to intersections to improve traffic flow in the two-lane section of Massachusetts Avenue. Such improvements may include left-turn pockets at intersections, where justified, and signal coordination.

5. HOUSING & RESIDENTIAL DEVELOPMENT

A. INTRODUCTION

Arlington is an historic, highly residential, and very developed Boston suburb. It encompasses many distinct neighborhoods offering a variety of housing, from single-family homes to mid-rise apartment buildings. Rapid population growth in the first half of the twentieth century triggered the initial major growth of housing across former farmland and over hilly terrain. Large lots were subdivided for the construction of single and multi-family homes along busy streetcar and railroad lines that extended out from Boston, Cambridge, and Somerville.

The original streets were laid out in relatively dense grids off of Massachusetts Avenue and Broadway. These have developed into mature, compact, neighborhoods, lush with trees, a mix of housing styles, and are interspersed with some local business areas, parks, local elementary schools, churches and other amenities.

Though it has very little vacant, developable land, Arlington is still poised for growth and inevitable changes to its housing stock. An increasing demand for housing in the Boston Metro area has pushed up home prices and rents in once-affordable communities, including Arlington, triggering the conversion of nonresidential space to housing, and the redevelopment of small-scale buildings or underutilized properties into higher density, multi-family units. This demand is also setting the stage for major changes in socioeconomic demographics, as property values increase, and the income threshold for new residents rises.

B. EXISTING CONDITIONS

1. Physical Characteristics of Arlington's Housing Stock

HOUSING TYPES

Arlington is unique among Boston's inner-suburbs in its diversity of housing stock. Although single-family homes are still the dominant housing type in some of the affluent nearby towns, these homes represented less than half of the 20,017 housing units in Arlington in 2011 (Table X.1). Two-family and small multi-family dwellings account for almost one-third of the housing units in Arlington, and mid-size apartment buildings about one-fifth.

Table X.1: Number of Units in Structure, 2000 and 2011								
Housing Type	2000	2011	Difference	% Change				
			(2000-2011)	(2000-2011)				
Total housing units	19,011	20,017	1,006	5.0%				
1-unit, detached	7,788	8,445	657	7.8%				
1-unit, attached (townhouse)	524	1,140	616	54.0%				
2 units	5,652	5,156	-496	-9.6%				
3 or 4 units	974	1,268	294	23.2%				
5 to 9 units	488	625	137	21.9%				
10 to 19 units	1,158	973	-185	-19.0%				
20 or more units	2,403	2,403	0	0.0%				

Mobile home	15	7	-8	-114.3%
Source: U.S. Census Bureau, Census 20	000 SF-4 and AC	CS 2007-2011, D	OP4	

Many neighborhoods in Arlington developed across the span of over a century, and have produced a varied set of housing styles. Most housing units are in single-use structures, but many historic mixed-use buildings can be found, particularly around the business districts in East Arlington and Arlington Center. In general, points west and north of Arlington Center have fewer multi-family dwellings, although pockets of two- and three-family homes and even some larger multifamily buildings can be found (Map X-1).

Housing Type	Town	Tract	Tract	Tract	Tract	Tract	Tract	Tract	Tract
		3561	3563	3564	3565	3566.01	3566.02	3567.01	3567.02
Total housing units	20,017	1,455	2,452	2,971	2,909	2,182	1,720	3,192	3,136
1-unit, detached	8,445	219	501	2,229	1,815	1,102	934	341	1,304
1-unit, attached	1,140	147	379	59	94	51	48	163	199
2 units	5,156	899	744	352	486	228	455	1,441	551
3 or 4 units	1,268	137	423	78	72	88	92	277	101
5 to 9 units	625	34	102	0	88	90	53	107	151
10 to 19 units	973	19	164	26	121	326	19	186	112
20 or more units	2,403	0	139	220	233	297	119	677	<i>7</i> 18
Mobile home	7	0	0	7	0	0	0	0	0

In recent years, Arlington's condominium inventory increased significantly. Data from the Massachusetts Department of Revenue (DOR) show that Arlington gained 959 condominiums units between 2003 and 2014.²⁴ The Town Assessor reports that most of these units stem from two-family and three-family home conversions, an explanation generally consistent with data from the U.S. Census Bureau. During this same period, Arlington registered a minor increase in small multifamily structures, but single-family homes were the main addition.

AGE OF HOUSING STOCK

Arlington's housing is relatively old. Local data show that the average age of housing units in Arlington is 81 years and the median year of construction is 1931. Similar conditions exist in other towns and small cities around Boston and Cambridge, while housing in outer parts of Middlesex County is newer (Table X.3).

Although housing is fairly old throughout Arlington, there are important neighborhood-level differences. For example, in the neighborhoods near Arlington's northern border with Winchester, most housing units were built after the Second World War, as were most units in the East Arlington neighborhoods of Sunnyside and Kelwyn Manor. New construction in the past decade, whether by teardown/rebuild or infill development, has mostly occurred in Arlington Heights, Arlington Center,

²⁴ Commonwealth of Massachusetts, Department of Revenue (DOR), Division of Local Services (DLS), Municipal Data Bank.

and in the neighborhoods bordering Belmont and Lexington. Housing age appropriately correlates to decisions to rebuild, however, neighborhood desirability and housing typology preference seem to play a larger role in where redevelopment occurs in Arlington.

Table X.3. Distribu	Table X.3. Distribution of Housing by Year Built								
	Construction Period								
Geography	2000- 2011	1990-99	1980- 89	1970- 79	1960- 69	1950- 59	Pre-1950		
ARLINGTON	3.3%	1.4%	2.7%	6.4%	10.0%	12.4%	63.8%		
Belmont	2.6%	0.9%	1.5%	5.1%	4.6%	12.3%	73.1%		
Cambridge	7.0%	4.7%	7.3%	8.7%	6.2%	4.4%	61.7%		
Lexington	9.5%	6.0%	7.4%	8.9%	15.2%	22.5%	30.6%		
Medford	4.8%	1.6%	7.8%	6.4%	5.3%	7.9%	66.1%		
Somerville	3.1%	1.8%	4.3%	6.3%	4.4%	5.1%	75.0%		
Winchester	3.8%	6.4%	7.9%	5.8%	12.5%	14.6%	49.0%		
Middlesex County	6.5%	6.5%	9.6%	10.4%	11.1%	12.4%	43.4%		
Massachusetts	6.7%	7.3%	10.8%	11.7%	10.4%	11.5%	41.5%		
Source: ACS 2007-	2011, 5 Year Es	timates, DP-C	04, B2503 & .	Arlington Asse	essor's Data 20	013.			

HOUSING SIZE AND DENSITY

According to the American Community Survey (ACS), Arlington's housing units are slightly larger than those found in other inner-suburbs and small cities. In Arlington, the median number of rooms per unit is 5.7 rooms. By contrast, most communities next to Boston have at least one less room per unit (except Milton), and the outer suburbs tend to have at least one more room per unit. While the median number of rooms per unit can be a useful measure of overall housing size, it is not always a good indicator of the number of bedrooms. For example, almost one-fourth of all housing units in Middlesex County have four bedrooms; in Arlington, two- and three-bedroom units represent over two-thirds of all housing units and four-bedroom units make up just 16.4 percent.

Not surprisingly, Arlington's older, higher-density neighborhoods have smaller units while the less dense neighborhoods with newer, mostly single-family homes have larger units. Densities vary within Arlington, and neighborhood characteristics range from suburban to urban, offering a variety of housing sizes. The Turkey Hill and Morningside neighborhoods are the least densely developed and have the lowest population density (5,711 people per sq. mi.).²⁵ These neighborhoods also have the largest share of single family homes, the largest housing units, and the majority of Arlington's newer homes. Arlington Center and the Menotomy Rocks and Jason Heights neighborhoods also have a sizeable share of Arlington's larger homes. East Arlington's neighborhoods tend to have the smallest and oldest units in Arlington, and the population density in these areas ranges from 11,000 to 13,000 people per sq. mi. In the Capitol Square area (Census Tract 3567.01), 70 percent of all housing units have two bedrooms or less. Over half the housing units around Brattle Square (Census Tract 3566.01) also have one or two bedrooms.²⁶

²⁵ US Census 2010, DP-1.

²⁶ ACS 2007-2011, 5 Year Estimates, DP-04

2. Housing Development Trends

BUILDING PERMITS

According to the U.S. Census, Arlington permitted 657 housing units between 2002 and 2012 (Table X.4), or 3 percent of all units in town as of 2013. Like most communities, Arlington experienced a drop in single-family and two-family home permits following the recession. Notwithstanding, multi-family permits remained strong, largely due to the redevelopment of the former Symmes Hospital (Arlington 360 project), and the former Brigham's Ice Cream factory (Brigham Square Apartments).²⁷

- **Symmes Hospital Redevelopment.** The Town of Arlington purchased the 100-year old Symmes Hospital property in 2001 after Advantage Health and the Lahey Clinic stopped operations there. The Town later sold the site to Arlington 360 LLC, and the property was developed jointly by Jefferson Apartment Group and Upton & Partners. The project consists of 176 units, including 146 apartments and thirty two- and three-story townhomes. Twenty-six of the apartments will be reserved for rent by lower-income households, and nine units will be made affordable to middle-income households, with incomes up to 120% of area median income (AMI). Occupancy of this project began in 2014.28
- **Brigham Square.** In 2008, Wood Partners purchased the former Brigham's Ice Cream factory at 30-50 Mill Street after the property fell into foreclosure. The project involved the demolition of the original 85,000 sq. ft. industrial building and replacing it with 116 residential units (18 studio, 35 one-bedroom and 63 two-bedroom units), including 15 percent reserved for lower-income households.²⁹ Occupancy began in 2013. The property was sold to Intercontinental Real Estate Corporation in December, 2013.

REGIONAL TRENDS

There is a considerable amount of new housing development in communities around Arlington. Approximately 1,300 units have been permitted near the Alewife MBTA Station in North Cambridge, and several housing projects have been proposed in Belmont as well.

■ The Residences at Alewife/ Vox on Two (North Cambridge). Criterion Development Partners is building 227 new housing units on a site along Route 2 that had been vacant for approximately twenty years. Upon completion, the project will include 25 studios, 131 one-bedroom units, and 71 two-bedroom units, with 34 units reserved for lower-income households.³⁰

		Year							
Geography	2002	2003	2004	2005	2006	2007			
ARLINGTON	44	70	68	<i>7</i> 1	69	48			
Belmont	4	11	15	48	42	3			
Cambridge	45	22	81	996	54	611			
Lexington	72	61	65	65	55	91			
Medford	11	24	14	16	16	13			

²⁷ Town of Arlington, Inspectional Services, http://arlserver.town.arlington.ma.us/buildingpermits//.

²⁸ Jefferson Apartment Group & Upton + Partners, http://livearlington360.com/.

²⁹ Alta Brigham Square, http://www.altabrighamsquare.com/brigham-square.

³⁰ Metropolitan Area Planning Council, Development Database, http://dd.mapc.org/projects/detail/1550/

Winchester	99	91	98	23	32	31
Middlesex County	2,841	3,388	3,806	6,129	3,358	4,275
Geography	2008	2009	2010	2011	2012	Total
ARLINGTON	52	33	53	60	89	657
Belmont	1.5	2	15	43	27	225
Cambridge	36	11	38	34	392	2,320
Lexington	60	52	83	61	97	762
Medford	4	(n/a)	2	2	3	105
Winchester	24	15	18	50	49	530
Middlesex County	2,005	1,642	2,109	1,823	2,928	34,304
Source: Censtats 2013	1		<u>'</u>	•	,	

- The Altmark (North Cambridge). Cabot, Cabot & Forbes is developing 428 units in two five-story buildings on a 4.5-acre site at 70 Fawcett Street.³¹ The project consists of 55 studio apartments, 217 one-bedroom units, and 157 two-bedroom units:³² The first phase has been completed with 260 units. Phase two will include the remaining 168 units. The developers expect to finish the project in 2015. This site was formerly occupied by two low-rise office buildings.
- **160-180 Cambridgepark Drive (North Cambridge).** Construction of a 445,000 sq. ft. podium-style apartment building began on this site in December 2012. Upon completion (estimated for 2015), the project will offer 398 one- and two-bedroom units, with 46 affordable units for lower-income households.
- **165 Cambridgepark Drive (North Cambridge).** This 2.76 acre site was formerly occupied by a warehouse building, an office building, and surface parking. The site is currently being redeveloped by Hines as a 280,000 sq. ft. apartment building. The building will contain 244 units, of which there will be 9 three-bedroom units, 74 two-bedroom units, 117 one-bedroom units, and 44 studios. Twenty-eight of the units will be designated as "affordable housing". The site will be served by 230 parking spaces. Construction is expected to be complete in 2015.³³
- Belmont Uplands (Belmont/Cambridge). O'Neill Properties Group proposes to build 299 apartments on a 15.6-acre site in Belmont (about three acres of the site lie in Cambridge). The development would include four five-story buildings with 159 one-bedroom units, 116 two-bedroom units, and twenty-four three-bedroom units. Sixty apartments would be reserved for lower-income households. Originally proposed in 2005, this project is in litigation and its fate is unclear.

³¹ Mark Levy, "Project will add 429 apartments at Alewife, developer says," Cambridge Day, November 16, 2011, http://www.cambridgeday.com/2011/11/16/project-will-add-429-apartments-at-alewife-developer-says/

³² Cabot, Cabot & Forbes, http://atmarkapts.com/

³³DiMella Shaffer, Planning Board Special Permit 272 Plans, www.cambridgema.gov/~/media/Files/CDD/sp272_plans.ashx

3. Housing Market

TENURE AND OCCUPANCY

Arlington's homeownership rate (58 percent) is on par with that of Middlesex County and the State as a whole, but lower than in many of Boston's outer suburbs. Arlington and other inner-suburban communities tend to have more renters because they have a historic development pattern with a larger inventory of multi-family units. However, since 1980, the homeownership rate in Arlington has slowly increased, climbing by about 2.5 percent between 2000 and 2010. This trend is not consistent across all of Arlington, as neighborhoods with more multi-family housing tend to have more renters. For example, the Capitol Square area (Tract 3567.01) has the largest number of multi-family units and the second largest percentage of renter-occupied units (Table X.5).

Table X.5. Housing Tenure in Arlington (2011)									
	Total	Vacant	Owner-	Renter-	Household size	Household size			
	housing units	housing units	occupied	occupied	(owner)	(renter)			
ARLINGTON	20,017	1,010	59.6%	40.4%	2.48	1.86			
Tract 3561	1,455	88	47.9%	52.1%	2.36	2.20			
Tract 3563	2,452	73	34.0%	66.0%	2.30	2.03			
Tract 3564	2,971	134	77.3%	22.7%	2.69	1.74			
Tract 3565	2,909	95	73.5%	26.5%	2.65	1.53			
Tract 3566.01	2,182	232	68.6%	31.4%	2.34	1.51			
Tract 3566.02	1,720	13	76.4%	23.6%	2.53	1.67			
Tract 3567.01	3,192	195	34.8%	65.2%	2.30	1.86			
Tract 3567.02	3,136	180	64.9%	35.1%	2.31	1.97			
Source: ACS 2007-2011, DP-04									

Many new residents have arrived in Arlington since 2000. According to the American Community Survey, over half of the people living in Arlington in 2010 moved into their present home at some point after 2000. The highest residential turnover rates occurred in neighborhoods with more multi-family homes, including Brattle Square, College Streets, and Capitol Square. Morningside, Turkey Hill, and neighborhoods bordering Lexington, with mostly single-family homes, have the highest rate of long-term residents.

HOUSING VALUES

The ACS reports Arlington's median 2011 owner-occupied housing value at \$496,000.³⁴ This includes both single-family homes and condominiums. More recently, the Warren Group reports the 2013 median single family home sold for \$550,000, a 10% increase over 2011. Arlington's housing values modestly exceed Somerville and Medford, but fall noticeably below those of Belmont, Lexington, and Winchester (Table X.6). Looking at a more regional perspective, average housing values in Arlington are 21 percent higher than in Middlesex County, and 44 percent higher than in Massachusetts.³⁵

Most cities and towns around Arlington experienced a significant rise in housing values from 2000 to 2010; a 40 percent increase in median home values was fairly common. However, Arlington

³⁴ American Community Survey 2007-2011, 5 Year Estimates, B25075.

³⁵ American Community Survey 2007-2011, 5 Year Estimates, B25075.

experienced more dramatic growth in housing values than any other community in the immediate area, except Somerville. In fact, Arlington's home values nearly doubled.

Table X.6. Change in Me	Table X.6. Change in Median Value of Owner-Occupied Units 2000-2010							
Geography	2000	2011	% Change					
ARLINGTON	283,800	496,000	74.8%					
Belmont	450,000	632,400	40.5%					
Cambridge	398,500	546,900	37.2%					
Lexington	417,400	687,100	64.6%					
Medford	226,800	392,600	73.1%					
Somerville	214,100	447,000	108.8%					
Winchester	421,800	690,600	63.7%					
Middlesex County	247,900	410,100	65.4%					
Massachusetts	185,700	343,500	85.0%					
Source: ACS 2007-2011,	B20575. US C	ensus 2000, HO	76.					

Median housing values indicate the midpoint of all housing values in a given community. Further analysis of ACS data reveals that fewer than 10 percent of owner-occupied housing units in Arlington are valued at \$300,000 or less while 75 percent are valued at \$400,000 or more, and half of those at over \$500,000. Within Arlington, home values differ by neighborhood. Arlington Center has the highest median value of owner-occupied units (\$558,900), while the College Streets area of East Arlington has the lowest median home value (\$443,600). This difference is a reflection of housing typology, age, size, and quality of housing stock, and specific neighborhood amenities, and urban design.

HOUSING SALES

Most communities in the region witnessed a decline in housing sale prices during the most recent recession period, but in Arlington they actually increased by 3.1 percent between 2006 and 2012. Since 2000, sales prices have risen 31 percent (Table X.7). However, while sales prices remained strong or stable, the recession did trigger a drop in overall sales activity in the town. At the macro scale, the number of sales in Arlington has remained fairly consistent for the past 25 years. Between 1987 and 2012, there were an average of 609 per year. The proportion of single-family and condominium sales fluctuates, but during the same 25 years, an average of 317 single family homes and 184 condominiums sold each year in Arlington.³⁷

	Med	lian Sale Price		
Geography	2000	2006	2012	% Change 2000- 2012
ARLINGTON	\$320,000	\$450,000	\$464,500	45.2%
Belmont	\$435,500	\$637,000	\$622,200	42.9%
Cambridge	\$340,000	\$452,750	\$487,000	43.2%
Lexington	\$452,000	\$644,900	\$675,000	49.3%
Medford	\$250,000	\$389,000	\$349,900	40.0%
Somerville	\$315,000	\$392,500	\$424,000	34.6%
Winchester	\$399,000	\$634,500	\$655,700	64.3%

³⁶ American Community Survey 2007-2011, 5 Year Estimates, DP-04.

³⁷ The Warren Group 2013, Town Stats.

Middlesex County	\$260,000	\$390,000	\$372,930	43.4%
	Nu	mber of Sales		
	2000	2006	2012	% Change 2000-
				2006
ARLINGTON	609	699	661	8.5%
Belmont	274	321	408	48.9%
Cambridge	1,098	1,372	1,311	19.4%
Lexington	436	475	591	35.6%
Medford	656	737	703	7.2%
Somerville	703	961	895	27.3%
Winchester	372	340	337	-9.4%
Middlesex County	22,908	21,624	19,880	-13.2%
Source: The Warren Gr	oup 2013, Town Stats	:		

Table X.8. Median Gross Rents (2000-2011)								
	2000	2011	% Change					
ARLINGTON	\$934	\$1,318	29.1%					
Belmont	\$1,141	\$1,616	29.4%					
Cambridge	\$962	\$1,529	37.1%					
Lexington	\$1,288	\$1,887	31.7%					
Medford	\$819	\$1,328	38.3%					
Somerville	\$874	\$1,355	35.5%					
Winchester	\$1,031	\$1,366	24.5%					
Middlesex County	\$835	\$1,243	32.8%					
Massachusetts	\$684	\$1,037	34.0%					
Source: ACS 2007-201	1 DP-4, U.S.	Census 200	0 QT-H12					

MARKET RENTS

According to the U.S. Census Bureau, Arlington has 7,349 renter-occupied housing units. The median household size for renters is 1.86 people, with most renters living in one- or two- bedroom units. In 2011, Arlington's median gross rent, \$1,318, represented a 29.1 percent increase over 2000 (Table X.8). This increase is similar or lower than most adjacent communities, and below both county and state rates of change.

Table X.9. Survey	of Market Rents in Arling	gton and Su	rrounding	Communiti	ies		
		Re	ent	Number of Bedrooms			
Community	Development	Low	High	Studio	1 Br	2 Br	3+ Br
Arlington	Alta Brigham Square	\$2,000	\$3,265	Χ	Χ	Х	
Arlington	Cedar Crest	\$1,400	\$1,876		Χ	Х	
Arlington	Hamilton	\$1,195	\$1,750	Χ	Χ		
Arlington	Parkway Mystic Apts.	\$2,000	\$2,000			Χ	
Arlington	The Legacy	\$1,700	\$2,750		Χ	Х	
Arlington	Individual Listings	\$1,025	\$5,000	Χ	Χ	Χ	Х
Belmont	Individual Listings	\$1,155	\$5,500	Χ	Χ	Χ	Χ
Medford	Mystic Place	\$1,460	\$1,950		Χ	Х	
Medford	Wellington Place	\$2,025	\$2,990		Χ	Х	
Medford	Individual Listings	\$950	\$4,500	Χ	Χ	Х	Х
North Cambridge	The Altmark	\$2,020	\$3,224	Χ	Х	Х	

North Cambridge	Walden Park	\$1,975	\$2,445	Х	Χ	Χ	
North Cambridge	Individual Listings	\$1,200	\$4,400	Χ	Χ	Х	Х
Somerville	Maxwell's Green	\$1,850	\$4,055	Χ	Χ	Х	Х
Somerville	Individual Listings	\$1,195	\$5,500	Χ	Χ	Х	Х
Source: Community Opportunities Group							

According to a market rent survey in 2013, in the two years since the latest census figures, Arlington's market rents rose even higher (Table X.9). Area rental prices are also affected by the large number of non-family households that are composed of university students and young, single professionals. These households – especially students – typically involved shared housing and often have rents on a per-bedroom basis. As a result, they effectively inflate the rents for larger units beyond the reach of most family households. In addition, most of the region's new "luxury" apartment complexes generally provide studio, one- and two-bedroom units, and rarely offer three-bedroom units.

FORECLOSURES

The U.S. housing market has been in a boom-and-bust cycle for over a decade. Following several years of rising home values and record growth in conventional and subprime loans, the economy slumped in 2007 and many property owners went into default on their mortgages. Subprime loans were responsible for a disproportionate share of early foreclosures, but as the economy worsened, a vicious cycle of unemployment and falling housing values ensued. Many homeowners found themselves "underwater," i.e., with mortgage loans that exceeded the market value of their homes. In Arlington, foreclosure activity peaked in 2010, with 47 foreclosure petitions filed by mortgage lenders (Table X.10). For many Massachusetts cities and towns, including Arlington, foreclosures drastically declined in 2011, only to bounce up again in 2012.

Table X.10. Number of Residential Foreclosures									
	2007	2008	2009	2010	2011	2012			
ARLINGTON	43	24	46	47	18	36			
Belmont	23	19	19	20	12	12			
Cambridge	84	57	94	59	27	26			
Lexington	27	23	35	25	13	22			
Medford	179	157	1 <i>7</i> 6	126	92	85			
Somerville	160	123	155	119	58	56			
Winchester	37	22	27	24	16	10			
Middlesex County	4,618	3,633	4,470	3,657	1,896	2,537			
Massachusetts	29,572	21,802	27,923	23,931	12,634	1 <i>7</i> ,1 <i>5</i> 2			
Source: The Warren Gr	Source: The Warren Group, 2013								

4. Housing Affordability

Arlington has worked for many years to provide decent, affordable housing for low- and moderate-income residents who cannot afford to buy or rent market-rate units. "Affordable housing" means a monthly housing cost that does not exceed 30 percent of a lower-income household's monthly gross income. For homeowners, "monthly housing cost" includes a mortgage payment, property taxes and house insurance, while for tenants it includes monthly rent and basic utilities. When lower-income

households have to spend more than 30 percent of their monthly gross income on housing, they are considered **housing cost burdened**.

The U.S. Census Bureau estimates that 32 percent of all households in Arlington spend more than 30 percent of their gross income on housing. However, not all of these households meet the definition of housing cost burden because many are middle- and upper-income homeowners and renters. Of Arlington's 11,000 homeowners, approximately 1,270 (11 percent) have low or moderate incomes, and 81 percent of those are housing cost burdened. Moreover, half of Arlington's lower-income homeowners are **severely cost burdened**, i.e. households that spend over 50 percent of their income on housing costs. While the percentage of cost burdened low-income homeowners changed very little between 2000 and 2010, the percentage with severe housing cost burdens increased significantly, from about 30 percent to 49.8 percent. As for Arlington's 7,445 renters, 3,250 (44 percent) have low or moderate incomes and almost 80 percent are housing cost burdened.

AFFORDABILITY MISMATCH

The picture of housing affordability is further complicated by **affordability mismatch**, a condition that exists when actually affordable units cannot meet a town's affordable housing needs because people with higher incomes live in them. In Arlington, there are approximately 320 modest ownership units that would be affordable to low- or moderate-income homebuyers, but 82 percent are owned and occupied by households with middle or higher incomes.³⁸ In addition, local assessor's data indicate that in Fiscal Year (FY) 2014, less than 1 percent of market-rate homes in Arlington were valued below \$280,000: a purchase price affordable to a family of four with earnings equal to the Metro Boston median income (\$94,400).³⁹Almost 60 percent (4,415) of the rental units in Arlington have monthly rents that qualify as affordable under HUD's rent limits, but only 58 percent of them (2,575 units) are occupied by low- or moderate-income tenants. Moreover, in many cases households with very low incomes live in apartments that are affordable to moderate-income renters. This means that a community's affordable housing units are not necessarily affordable to the owners or renters who live in them.

CHAPTER 40B

Chapter 40B is a state law that allows qualified developers to apply to the Zoning Board of Appeals (ZBA) for a single comprehensive permit for multi-family construction that includes affordable housing.⁴⁰ When less than 10 percent of a community's housing is restricted for occupancy by lower-income households at prices they can afford, Chapter 40B all but requires the approval of comprehensive permit applications. In this calculation, the numerator includes affordable units eligible for the Chapter 40B Subsidized Housing Inventory (SHI), and the denominator is based on the total number of year-round housing units in the most recent decennial census. Until the next federal census

³⁸ U.S. Department of Housing and Urban Development (HUD), Comprehensive Housing Affordability Strategy (CHAS) Data, Tables 8, 15A, and 15B.

³⁹ US Department of Housing and Urban Development 2013, Income Limits System.

⁴⁰A comprehensive permit is a type of unified permit: a single permit that replaces the approvals otherwise required from separate city or town permitting authorities and requires one single permit from the local Zoning Board of Appeals. Under Chapter 40B, the Zoning Board of Appeals may approve, conditionally approve, or deny a comprehensive permit, but in communities that do not meet the 10 percent minimum, developers may appeal to the state Housing Appeals Committee (HAC). Although comprehensive permits may still be granted after a town achieves the 10 percent minimum, the HAC no longer has authority to overturn a local board's decision.

(2020), Arlington's 10 percent statutory minimum means an affordable housing target of 1,999 units.⁴¹ As of the beginning of 2014, Arlington has 1,121 affordable units, 5.6% of its total units. This is well short of the number of units that would allow the ZBA to reject a comprehensive permit application.

Communities can also satisfy Chapter 40B requirements if at least 1.5 percent of their land area is developed for affordable housing. Arlington is much closer to reaching this threshold than it is to attaining the 10 percent affordable housing unit quota. According to the Massachusetts Department of Housing and Community Development (DHCD), the agency that administers Chapter 40B, only two towns have met the 1.5 percent land area threshold. Because the land area calculation is less exact than calculating units, denial of a permit under that provision requires a hearing before the State Housing Appeals Committee (HAC) - the state body that has power to overturn a local board's comprehensive permit decision.

Table X.11.Chapter 40B Subsidized Housing Inventory									
Community	Census 2010	Total	SHI	SHI %					
	Year-	Development	Units*						
	Round Units	Units							
ARLINGTON	19,881	1,323	1,121	5.6%					
Belmont	10,117	388	388	3.8%					
Cambridge	46,690	<i>7</i> ,181	<i>7,</i> 091	15.2%					
Lexington	11,946	1,515	1,334	11.2%					
Medford	23,968	1,680	1,642	6.9%					
Somerville	33,632	3,228	3,216	9.6%					
Winchester	7,920	199	152	1.9%					
Massachusetts	2,692,186	276,010	247,059	9.2%					

Source: Mass. Department of Housing and Community Development.
*Arlington's SHI Units may not include the Alta Brigham development. This table

*Arlington's SHI Units may not include the Alta Brigham development. It will be updated for the draft master plan.

Table X.11 shows that two of Arlington's neighbors, Cambridge and Lexington, exceed the 10 percent SHI minimum, and that Somerville is very close (9.6 percent). Most of Arlington' SHI units were created without Chapter 40B comprehensive permits. In fact, Arlington has only seen one comprehensive permit development that included four affordable units. All of Arlington's affordable housing have long-term deed restrictions that keep the units affordable in perpetuity or for either 30 or 50 years. Forty-one of Arlington's units have affordable housing restrictions that will expire in the 2030s unless the owners renew with a housing subsidy program or the Town uses its own funds to purchase restrictions.

INCLUSIONARY ZONING

In 2001, Arlington adopted an inclusionary zoning bylaw: a requirement that in any development of six or more units, 15 percent must be made affordable to low- and moderate-income households. The units are sold or rented through a lottery conducted by the Town or the developer. Units are reserved for first-time homebuyers or renters who meet income eligibility requirements and, in the case of forsale units, have successfully completed a homebuyer education program. Since its inception, the inclusionary zoning bylaw has created fifty-three units of affordable housing: eleven for-sale units and

⁴¹ N.B. As of Census 2010, Arlington has a total of 20,017 housing units and 19,881 year-round units.

forty-two rental units.⁴² Examples of projects that recently triggered the inclusionary zoning bylaw include Brigham Square and the Symmes Hospital /Arlington 360 redevelopment projects.

HOUSING CORPORATION OF ARLINGTON

The Housing Corporation of Arlington (HCA) was formed in 1986 to provide affordable housing for Arlington residents affected by rising housing costs. In its early years, HCA offered down payment assistance to first-time homebuyers with moderate incomes. In 2001 HCA began purchasing and rehabilitating properties and offering them as affordable rental units. The Town of Arlington has provided federal grant funds to support the HCA's acquisition-rehabilitation efforts. Today, the HCA owns and manages ninety affordable rental units in multiple locations.⁴³ Thirty of these units are two-family homes and sixty are in larger rental properties. In addition, the HCA operates a Homelessness Prevention Program that provides rent or security deposit subsidies to income-eligible, qualified households living in Arlington.

FEDERAL HOUSING GRANTS

Arlington uses two federal grant sources to support the creation and preservation of affordable housing. As an "entitlement" grantee, Arlington receives Community Development Block Grant (CDBG) funds from the U.S. Department of Housing and Urban Development every year. The Town uses a portion of its CDBG funding to capitalize a home improvement loan program for homeowners and residents of one- to four-unit buildings, and to support development of affordable rental units. In addition, Arlington belongs to a consortium of eight cities and towns that participate in the federal HOME Investment Partnership Program (HOME). The North Suburban HOME Consortium, based in Malden, makes HOME funds available to member communities for housing rehabilitation, lead paint abatement, and rental development, and also administers a down payment assistance and homebuyer education program. Arlington has used HOME funds to support rental development and a first-time homebuyer assistance program. Since the HCA qualifies as a Community Housing Development Organization (CHDO) under federal HOME regulations, it has direct access to a portion of the Consortium's HOME dollars and has used those funds to acquire and rehabilitate affordable rental units in Arlington.

ARLINGTON HOUSING AUTHORITY

The Arlington Housing Authority (AHA) owns and operates 175 units of affordable family housing and over 500 units of elderly housing. AHA also oversees and administers state and federal rental subsidy programs and offers a limited amount of special needs housing. 44

- Family Housing. AHA offers 175 two- and three-bedroom units at Menotomy Manor in East Arlington. Veterans, current Arlington residents, and families with no other form of assistance receive preference for available units. Menotomy Manor is currently being modernized with improvements to building envelopes including new insulation and new siding.
- **Elderly and Disabled Housing.** AHA owns and manages four public housing developments for the elderly and people with disabilities. Priority goes to Arlington residents, victims of natural

⁴² Laure Wiener (Director of Housing, Town of Arlington, MA), email message to Community Opportunities Group, Inc., September 11, 2013.

⁴³ Housing Corporation of Arlington, 2013. http://www.housingcorparlington.org/.

⁴⁴ Arlington Housing Authority. 2013. http://arlingtonhousing.org/.

disasters, people displaced by government programs, and the homeless. The developments include Winslow Towers (1971), 132 one-bedroom units; Chestnut Manor (1965), 100 one-bedroom units; Cusack Terrace (1983), sixty-seven one-bedroom units, with five wheelchair accessible units; and Drake Village Complex (1961), 216 units, with seven wheelchair accessible units. Millbrook Square is another property that provides housing options for low income, elderly, and disabled residents. It is privately owned and managed by Corcoran Jennison Management, LLC.

- **Tenant Assistance.** AHA administers the HUD Section 8 Housing Choice Voucher Program and the Massachusetts Rental Voucher Program (MRVP). Both programs provide a "gap" subsidy that makes it possible for income-eligible households to rent market-rate units. The tenants pay 30 percent (or more) of their monthly gross income toward rent and the AHA makes up the difference.
- **Special Needs Housing.** AHA sponsors a residential home for thirteen developmentally disabled adults. There are approximately 113 housing units in Arlington designated for people with special needs, most administered by AHA.
- **Single Room Occupancy Housing.** Arlington has two projects that house low-income single person households, with shared kitchen and baths. These properties are owned and operated by Caritas Communities, contain 37 units, and are an importance part of the affordable housing inventory.

GROUP HOMES

Arlington's SHI includes 81 units in group homes for adults with severe disabilities.⁴⁵ They include fifty-five units overseen by the Department of Developmental Services (DDS) and twenty-six units administered by the Department of Mental Health (DMH). Arlington also has private group homes and mental health treatment facilities, such as those administered by the AHA, but only units under a DDS or DMH contract "count" toward the 10 percent SHI calculation as per Chapter 40B.

OTHER ASSISTED HOUSING

Caritas Communities owns two single-room occupancy (SRO) properties in Arlington. One of these residences was built with HOME funds. It provides housing for twenty-one (21) low-income residents and one resident house manager. The second property houses fifteen residents. The length of stay at these residences varies from one month to several years.

5. Housing Quality

At first glance, Arlington does not appear to have many units with housing quality problems such as substandard construction, energy inefficiency, incomplete cooking or plumbing facilities, or over-occupied living conditions. However, data from the U.S. Census Bureau and local health department indicate that such units do exist. According to a special report that HUD produces from census records, about 5 percent of Arlington's lower-income renters (160) have housing problems other than excessive housing costs. Sanitary code deficiencies and crowded units appear to comprise most of the housing quality problems in Arlington's rental stock.⁴⁶

⁴⁵ Department of Housing and Community Development, Subsidized Housing Report (Arlington), August 27, 2013.

⁴⁶ HUD, CHAS Data; Arlington Health Department.

6. Facilities for the Elderly

In addition to the elderly housing provided by the AHA, Sunrise Senior Living in Arlington provides market rate assisted living, independent living, memory care, short term stays, companion living, and hospice care for elderly and disabled adults. A sixty-unit assisted living residence called Brightview has recently opened at the former Symmes Hospital site. There are no age-restricted (so-called "over-55") independent living developments in Arlington. The Council on Aging reports that wait lists for affordable properties serving the elderly and disabled have increased significantly as of late.

C. ISSUES AND OPPORTUNITIES

Communities influence the make-up of their population through the choices they make to control housing growth. In Arlington, many residents say the town's historic housing affordability has been essential for keeping it an economically diverse place. When asked why they decided to purchase or rent in Arlington, residents new and old often say they found decent housing they could afford in a region that has become increasingly expensive. However, long-term residents often note that as the quality of Arlington's housing has improved over time, the town has also lost some of its affordability. The good news for Arlington homeowners is that the value of their homes has increased significantly. The bad news— at least to some residents—is that Arlington's rising home values make it more difficult to preserve the social mix that many people characterize as one of its strengths.

The concerns and disagreements about housing in Arlington are similar to those heard elsewhere in the Boston Metro area. However, addressing these issues in Arlington involves the challenge of improving and/or supplying housing in a built-out, urban area. Arlington *does* have development opportunities, but successfully pursuing them will require agreement about basic policy issues that seem to be in dispute.

- Multifamily Conversions. Under Arlington's Zoning Bylaw (ZBL), special permits can be granted for residential use in the business districts. As land once occupied by car dealerships and other businesses became available for new development, housing proposals were approved, effectively reducing the amount of land devoted to nonresidential activity and the amount of property generating commercial tax revenue. This process continues to raise concern among those residents who fear the loss of commercial properties will increase the tax burden on residential properties. They want to curb conversions and maintain the commercial tax base.
- Vacant Land. Arlington has very little vacant land left for new housing construction or for any other need, e.g., public facilities and recreation areas. Two large sites that are developable include "Poet's Corner" at Dow Avenue and Route 2 and a large property adjacent to Thorndike Field near Alewife Station. The Dow Avenue/Route 2 site is zoned single-family residential like most of the surrounding neighborhood. However, this 6.4 acre property may have the potential for higher density or nonresidential development given its proximity to the highway. Some residents support prioritizing the land for open space and recreation needs. The other site, near Alewife, is zoned with a Planned Unit Development (PUD) to support mixed housing uses. However, the property lies almost entirely in a 1-percent flood zone, and many believe the land should remain unbuilt or largely undeveloped for environmental reasons.

- Mixed-Use Development. In the development of this master plan, residents have expressed the desire for the Town to promote mixed-use development in the business districts. They cite advantages such as bringing more people within walking distance of stores and restaurants, incentivizing redevelopment and increasing business district property values, creating affordable housing opportunities, and reducing dependence on single-occupancy vehicle trips to meet basic household needs. To make mixed-use projects realistic, however, Arlington would have to allow a maximum height greater than thirty-five feet in order to have attractive, marketable buildings over three stories with ground-floor business uses. Some opponents to height increases, however, say Arlington is already over-built and too dense. Off-street parking policies will also need to be reformed to be in line with more urban commercial planning practices. The economic strain of underground parking on small sites will decentivize investors, and there is likely less need for excessive parking in a more walkable, transit accessible environment that Arlington is starting to provide.
- Affordable Housing Development. Arlington has effectively used its inclusionary zoning and federal housing funds to create a fair amount of affordable housing. If Arlington reaches the 1.5% general land area minimum under Chapter 40B, it would not have to grant comprehensive permits in the future as long as it does not lose any of the affordable units on qualifying land. In 2014 Arlington seems close to achieving the 1.5% land area threshold. However, the state will not make an official determination about Arlington's land area status unless the Town receives a comprehensive permit application and denies it. This puts the Town in a difficult position because it would have to take the legal risks that come with denying a comprehensive permit in order to demonstrate that it actually complies with the statute. The Town can instead identify sites that would be likely 40B candidates and prepare for this outcome.
- **Elderly Housing.** Changing demographics will result in a growing number of Arlington residents over the age of 65 in coming years. The Town may not be able to accommodate all of its older residents on fixed incomes in the coming years.

D. RECOMMENDATIONS

1) Create an Affordable Housing Plan (Housing Production Plan) and submit to DHCD for approval under Chapter 40B.

The Town of Arlington's last Housing Needs and Strategy plan was prepared in 2004. The town should review it for current applicability, especially in light of the increase in young families moving to town. A housing production plan should take into consideration the needs of all demographics, including families, elderly, families with special needs, and households with low and moderate incomes. The plan should be prepared with Chapter 40B requirements in consideration, but also made to support housing needs not met by Chapter 40B developments.

2) Work with DHCD and the Town's state representative and senator to determine Arlington's status under the Chapter 40B 1.5 percent land area rule.

Arlington should provide affordable housing in ways that protect neighborhood character, support a diverse population, and meet the needs of low-income households both locally and in the region.

These objectives should not conflict with the purposes of Chapter 40B. However, it is very difficult for towns to control land development and protect neighborhood character unless they meet or exceed the Chapter 40B 10 percent minimum. The other statutory option for exerting control is the so-called 1.5 percent land area rule, i.e., whether 1.5 percent of Arlington's total land area is developed for affordable housing. It is very difficult for communities to determine whether they meet the 1.5 percent minimum. Historically, DHCD has declined to provide an opinion unless a developer has appealed a local board's decision to deny a comprehensive permit.

Arlington is working toward the 1.5 percent minimum, but based on available information, it is not clear how much additional land needs to be permitted for affordable housing in order for Arlington to meet the requirement. However, it will probably be easier for Arlington to satisfy the 1.5 percent land area requirement than to reach the 10 percent minimum, given that Arlington has so little vacant land left for new development. The Town should work with its legislators, Citizens Housing and Planning Association (CHAPA), and state officials to develop a process for communities to obtain a 1.5 percent land area determination from DHCD.

- 3) Address the quality and condition of aging housing stock, including financial assistance programs for homeowners and landlords, and zoning options to redevelop and convert older single-family residences located around commercial nodes to multi-unit dwellings.
- Improvements to the structure and aesthetics of one house on a block often spurs further investment on adjacent properties. Arlington should continue to provide housing rehabilitation assistance with its Community Development Block Grant (CDBG) allocation in order to help moderate-income homeowners address substandard housing conditions. Currently the Town provides low-interest loans to address code violations. Eligible homeowners have to satisfy basic credit requirements, have a stable income history, and repay the loan within fifteen years.
 - In addition to its current program, however, Arlington could provide some CDBG assistance as a grant (or deferred payment loan) to very-low-income homeowners with extraordinary or emergency housing needs. Despite Arlington's rising levels of household wealth, it still has a significant number of low- and moderate-income residents. According to the most recent housing affordability data from HUD, almost 19 percent of Arlington's households and 10 percent of its homeowners have low incomes (below 50 percent AMI).
- Changes the Zoning Bylaw to allow accessory apartments in owner-occupied single-family homes in the R0 and R1 districts by special permit and in all other residential districts as of right. Accessory apartments are a remarkably "low impact" strategy for providing housing choices and supporting aging-in-place for older homeowners (see below). A typical accessory apartment bylaw provides for a small unit in a single-family dwelling (and sometimes in accessory buildings), limits the size of the unit with floor area and number-of-bedroom standards, requires the project to preserve the appearance of a single-family home, requires the house or the apartment to be owner-occupied, and regulates the location of off-street parking. If Arlington had accessory apartment zoning in place, it could use CDBG or federal HOME funds to help subsidize the creation of accessory units for very-low-income seniors. Under current DHCD policy, the units would not "count" on the

Subsidized Housing Inventory, but they would nevertheless address a local affordable housing need.

■ Change the Zoning Bylaw to allow conversion of detached single-family homes to multi-unit dwellings, up to four units as of right, especially near the commercial areas on Massachusetts Avenue and Broadway. Arlington currently allows "apartment conversions" up to 18 units in the R4 and R5 districts and apartment buildings in the higher-density districts (R5, R6, and R7), but these uses require a special permit. Allowing smaller conversion opportunities as of right, subject to appropriate design standards, would encourage small-scale multifamily housing in areas with adequate facilities and access to transportation, and bring more people closer to the town's retail and service establishments.

4) Evaluate the aging-in-place needs of Arlington's senior population and begin to plan for changes in service delivery.

The housing plan should include an assessment of Arlington's aging-in-place needs – not only housing quality, but also accessibility, transportation and health care services, ample and diverse social and leisure programs, and opportunities to volunteer.

5) Zone for infill housing on nonconforming buildable lots.

Sometimes lots created before zoning took effect remain unbuilt because they do not comply with current regulations. Rather than keeping the property unused, unappealing, and off the tax base, the Town could establish regulations to allow substandard lots to be developed for housing. Market demand is growing in Arlington and could favor smaller scale development. Arlington should consider amending the Zoning Bylaw to allow infill housing to be built on lots that are otherwise unbuildable due to insufficient lot area. Changes to setbacks, height and density would have to be addressed.

6) Allow on-street parking in the vicinity of new multi-unit conversions or mixed-use developments and lower or remove the requirement for minimum parking.

The cost of parking is often the greatest hindrance to the economic feasibility of dense, urban developments. Minimum parking requirements should be removed for new mixed-use developments on Massachusetts Avenue and Broadway. These locations are well-served by public transit, and are close enough to commercial amenities and civic services so that the need for car use will be reduced. In addition, overnight on-street parking for residents in areas of mixed-use development should be allowed.

6. ECONOMIC DEVELOPMENT

A. INTRODUCTION

A community's economy is guided by its location, the types of industries and other commercial activity it attracts, the education and skills of its working-age population, and by the uses of its land. Any one community is part of a larger economic region or area connected by employment, trade, and transportation characteristics. The boundaries of such regions tend to correspond with land use patterns, utilities, and transportation systems that support the movement of goods and people. For economic statistical purposes, Arlington is part of the Boston-Cambridge-Quincy, MA New England City and Town Area (NECTA) *Division* (also referred to as Boston Metro). This area is centered on Boston and includes ninety-two communities with employment ties to the city, the "Route 128" suburbs, and some North Shore and South Shore municipalities. The Boston Metro division is part of the larger Cambridge-Boston-Quincy *Metropolitan area* that roughly extends in all directions to just beyond I-495.

Arlington has many characteristics of a workforce suburb, yet is also poised for development and attracting new business within its borders. Economic development is associated with the benefits of job creation, expanding a community's tax base, improving public services, strengthening the local economy, and enhancing the value of commercial properties. In Arlington, many believe that the addition of more businesses is required to expand the tax base and shoulder more of the cost of local government services. Arlington has very little vacant, developable commercial land available, and will require the redevelopment or renewal of specifically targeted sites to make a large scale impact in commercial growth. Several potential sites have been identified by the Town along Massachusetts Avenue, the Mill Brook, and Broadway. These locations, along with the historic centers of commercial activity in East Arlington, Arlington Center and Arlington Heights, as well as some neighborhood nodes will constitute the focus of economic development in town. Beyond physical sites, Arlington is also looking toward investment in the new innovation economy, small business creation and new workplace environments that are not necessarily dependent on location.

B. EXISTING CONDITIONS

1. Arlington's Labor Force

A community's **labor force** includes all residents between 16 and 64 years of age, employed or looking for work. Arlington's labor force includes 24,984 people, which represents a 72.3 percent **labor force participation rate.** ⁴⁷ As Table X.1 indicates, Arlington has a relatively high labor force participation rate among a local peer group, surpassed only by that of Somerville, and is positioned well above the national average of 64.1 percent (2011).

Table X.1. Labor Force Characteristics (2011)

⁴⁷ Labor Force Participation rate is the ratio between the labor force and the total size of the 16-64 cohort.

Geography	Labor	Labor Force	Civilian	Unemployment
	Force	Participation	Employed	Rate
		Rate		
ARLINGTON	24,984	72.3%	23,747	4.8%
Belmont	13,097	67.5%	12,552	4.1%
Cambridge	63,071	68.3%	59,018	6.0%
Lexington	15,512	64.2%	14,835	4.3%
Medford	33,504	69.8%	31,003	7.4%
Somerville	50,435	75.2%	47,073	6.5%
Winchester	10,076	63.3%	9,408	6.4%

Source: U.S. Census Bureau, American Community Survey (ACS) 2007-2011, DP-03. Note: Table X.1 omits military employment. For these seven communities, the combined total of Armed Forces employment is 473 people.

OCCUPATIONS

Similar to the trend that distinguishes the Boston Metro area from the state as a whole, residents of Arlington and other inner suburbs are far more likely to have occupations in management, science, technology, and the arts. An **occupation** describes the kind of work the person does, which is not the same as the **industry** a person works in or whether the person's employer is a public agency or private company. Sixty-four percent of Arlington residents have occupations in management, science, technology, or the arts, compared with 43 percent statewide; moreover, only 3 percent have production, manufacturing, or transportation jobs compared with 9 percent statewide (Table X.2).

Table X.2. Employed Civilian Labor Force by Occupation (2011)									
		Percent in Occupational Groups							
Geography	Employed Civilian Labor Force	Management, Science, Arts	Service	Sales and Office	Construction, Maintenance, Mining	Production, Transportation			
ARLINGTON	23,747	64.1%	8.9%	20.8%	3.7%	2.6%			
Belmont	12,552	66.7%	10.5%	17.0%	3.1%	2.7%			
Cambridge	59,018	69.6%	10.5%	15.5%	1.7%	2.7%			
Lexington	14,835	74.6%	6.7%	15.6%	0.8%	2.4%			
Medford	31,003	48.4%	15.2%	24.7%	6.0%	5.6%			
Somerville	47,073	53.4%	16.8%	19.9%	5.3%	4.6%			
Winchester	9,408	69.2%	7.6%	18.8%	2.1%	2.3%			
Massachusetts	3,280,503	43.1%	16.8%	23.9%	7.2%	9.0%			
Middlesex County	791,260	51.8%	14.2%	21.5%	6.0%	6.6%			

Source: U.S. Census Bureau, ACS 2007-2011, DP3, and RKG Associates.

Brief Definitions:

- a) Service occupations include a variety of occupations, from protective service workers to bartenders and wait staff in restaurants and personal services such as barbers and flight attendants.
- b) Sales and Office occupations include retail sales, wholesale representatives, travel agents, real estate agents and brokers, telemarketers, and others.
- c) Construction, Maintenance, Mining occupations include all of the construction trades and allied occupations, installation and repair workers,
- d) Production occupations include manufacturing, assembly, machinists, printers,
- e) Transportation occupations include trucking, bus drivers, taxi drivers, ambulance drivers, railroad operators, parking lot attendants, boat captains, material moving workers, truck and tractor operators, and so on.

LABOR FORCE BY INDUSTRY

Residents of Arlington and all of its surrounding communities are well represented in the information, professional and scientific services, and education, health care, and social service sectors. Approximately 57 percent of Arlington's employed civilian labor force works in the professional/scientific, information, or education/ health care sectors, which include industries that often require considerable expertise and training (Figure X.1). These are also among the top growth sectors in Eastern Massachusetts, and in many cases involve industries offering fairly high-wage employment. On average, Arlington residents are 1.5 to 1.7 times more likely to work in one of these industries than residents elsewhere in the state, which some studies correlate to the relatively high educational attainment of Arlington's population.⁴⁸

EMPLOYMENT PROFILE

The profile of Arlington's labor force is similar to that of the state, and Middlesex County. Figure X.2 illustrates the division of Arlington's employed population by sector, and shows that nearly 82 percent of Arlington residents have a wage or salary job with a private-sector business or non-profit organization. About 7 percent are self-employed individuals, while 11 percent of residents work as a government employee at the federal, state, or local level. This distribution is similar in neighboring cities and towns, with some exceptions. Belmont, for example, tends to have more residents in public-sector employment, and both Belmont and Lexington residents are more likely to be self-employed.

PLACE OF WORK

As a residential suburb with a fairly small employment base, Arlington does not offer many options for its own population to work locally. The overwhelming majority of its working residents commute to jobs outside of town. Thirty-nine percent of them commute to Boston or Cambridge, 11.3 percent have jobs in neighboring Belmont, Lexington, Medford, Somerville, or Winchester, and approximately 33 percent commute to Burlington, Waltham, or another major employment center along Route 128/I-95.⁴⁹ Arlington has a smaller percentage of locally employed residents than any of the adjacent cities and towns – only 15.7 percent of the local labor force works in Arlington. The impact of this "exodus" is noticeable – commuters are responsible for a 32 percent decrease in the town's daytime population.⁵⁰

Almost 6 percent of Arlington's employed labor force works at home. Most home-based workers are self-employed individuals, but some are telecommuters, i.e. people who work for a business that allows them to work at home for all or a portion of the work week. Though a larger share of Arlington's labor force works at home than that of Middlesex County or the state, several surrounding communities have even larger shares, notably Lexington, at 8.5 percent, and Belmont, at 7.8 percent.

⁴⁸ See Section 1, Demographic Characteristics; and Economic Development Self-Assessment Tool Results for the Town of Arlington (EDSAT) (June 2012), 5.

⁴⁹ See also, Section 3: Transportation.

⁵⁰ Source: U.S. Census Bureau, ACS 2006-2010 5-Year Estimates, Journey to Work and Migration Statistics, Table 2. Commuter-Adjusted Daytime Population: Minor Civil Divisions (July 24, 2012).

AGE DEPENDENCY

Arlington has a fairly low **age dependency ratio**, the relationship between the number of "dependent" persons – mainly children and senior citizens – and the labor force. Figure X.3 shows the age dependency ratio in Arlington and neighboring cities and towns. Arlington's ratio is **0.604**, which means there are only 0.6 children and seniors for every one working-age resident. In comparison, age dependency ratios in Cambridge, Somerville, and Medford are conspicuously low due to their disproportionate college student populations, and Lexington and Winchester – affluent suburbs with many families and large populations of school-age children – have much higher age dependency ratios, 0.864 and 0.869, respectively. Dependency ratios are a method to understanding the size and strength of a community's labor force, and are also key indicators for cost of living. As a rule, high dependency ratios indicate the need for higher household incomes to support the cost of municipal and school services. This is because the cost of services that benefit a large percentage of the population (seniors and school-age children) is paid for by a smaller percentage of the population (the working-age population).

2. Employment Base

A community's **employment base** includes all payroll jobs reported by for-profit, non-profit and public employers. Arlington's employment base includes 8,432 jobs, 87 percent of which are in industries that provide some type of professional, technical, financial, personal, or other service. Since 2001, the local employment base has declined by 4 percent if measured in jobs, but has grown almost 9 percent if measured by number of businesses, indicating that on average there are fewer jobs per employer. Under existing conditions, the jobs-to-housing ratio in Arlington is only 0.41 (0.41 jobs for every one housing unit) which is far below the standard planning range of 1.3 to 1.7 jobs per unit.⁵¹ This figure, however, is consistent with the amount of commercial and industrial floor space that currently exists in the town (about 2.5 million square feet (sq. ft.)) and assuming an industry standard average of one employee per 300 sq. ft.

LOCATION QUOTIENTS

Location quotients compare employment by industry in two or more geographic areas. The quotient is a ratio of the percentage of an industry's employment in one area to that of a larger comparison area. If the location quotient for a given industry's employment falls between 0.90 and 1.10, the industry's proportion of jobs is virtually equal in both places. A location quotient of less than 0.90 identifies an industry that is under-represented in the local economy, and one that is more than 1.10 identifies an industry with a disproportionally large percentage of local employment. For planning purposes, location quotients can suggest opportunities for industries to claim a larger share of employment, or indicate the danger of over-dependence on a single industry. However, sometimes a high location quotient simply signals unique regional conditions such as hospitality and tourism businesses in seasonal resort areas.

A location quotient analysis of Arlington's employment base, as shown in Table X.4, indicates that some industries are strongly served and others have a relatively small local presence. Aside from

⁵¹ Jerry Weitz, The Jobs-Housing Balance, Planning Advisory Service No. 516, American Planning Association (November 2003), 4

manufacturing, which is understandably underrepresented, professional and business services are noticeably low. Smaller services such as personal care, auto and equipment repair are overrepresented.

Table X.4. Analysis of Location Quotients for Arlington's Employment Base (2012)								
Industry	Location Quotient	Industry	Location Quotient					
Construction	2.875	Finance and Insurance	0.849					
Other Services (auto & equipment repair, laundry services, personal care, pet care, fraternal organizations, etc.)	1.887	Trade, Transportation and Utilities	0.791					
Real Estate, Rental and Leasing	1.311	Professional and Business Services	0.622					
Public Administration (federal, state & local non-educational government workers)	1.294	Transportation and Warehousing	0.578					
Information (Digital, print and multi-media publishing, broadcasting & communication)	1.170	Wholesale Trade	0.407					
Educational Services (public and private, pre-k to college)	1.149	Non-Durable Goods Manufacturing	0.399					
Health Care and Social Assistance	1.127	Manufacturing	0.166					
Retail Trade	1.018	Durable Goods Manufacturing	0.044					
Accommodations and Food Service	1.016							
Arts, Entertainment, Recreation	0.991							
Sources: Mass. Executive Office of Labor and Workforce Development, ES-202; and RKG Associates.								

LOCAL WAGES

The average weekly wage paid by Arlington employers (\$844) is low compared with statewide figures. Table X.5 shows that in some cases Arlington has a relatively small number of jobs in higher-wage

Table X.5. Employment in Arlington by Industry, Weekly Wage, and Location Quotient (2012)						
Industry	Total Jobs	Weekly Wage	Location Quotient			
Finance and Insurance	367	\$1,561	0.849			
Information	281	\$1,380	1.170			
Wholesale Trade	129	\$1,247	0.407			
Professional and Business Services	805	\$1,220	0.622			
Public Administration	452	\$1,133	1.294			
Construction	946	\$1,122	2.875			
Transportation and Warehousing	146	\$1,009	0.578			
Durable Goods Manufacturing	19	\$966	0.166			
Real Estate, Rental and Leasing	140	\$963	1.311			
Educational Services	990	\$780	1.149			
Health Care and Social Assistance	1,585	\$690	1.127			
Manufacturing	109	\$606	0.166			
Retail Trade	916	\$586	1.018			
Non-Durable Goods Manufacturing	90	\$530	0.044			
Other Services	695	\$503	1.887			
Arts, Entertainment, and Recreation	144	\$436	0.991			
Accommodation and Food Services	728	\$376	1.016			
Source: Executive Office of Labor and Wor	kforce Development (EOLWD), ES-202	2, RKG Associates.			

employment industries such as wholesale trade, with an average weekly wage of \$1,247 and a location quotient of only 0.407. By contrast, an industry with a stable location quotient such as "Health Care" at 1.127 pays very low weekly wages.

MARKETS SERVED BY ARLINGTON'S EMPLOYMENT BASE

Another way to think about Arlington's local economy is whether any of the existing employment serves markets outside the town itself. **Basic employment** includes industries that depend on external demand, e.g., manufacturing, which ships goods to non-local markets. Employment in manufacturing, farming, and mining is inherently basic, and almost any industry with a location quotient greater than 1.00 involves some basic employment. **Non-basic** or local market-serving employment depends almost entirely on local demand and usually employs local residents, e.g., grocery stores and small personal service establishments. Since an economy with a large percentage of basic employment is usually more resilient during an economic downturn, the division of basic and non-basic employment is important.

About 20 percent of Arlington's economy consists of basic employment, which is fairly small but consistent with the overall profile of local industries, jobs, and wages. Arlington's many restaurants provide some basic employment, as suggested by the location quotient of 1.016. Together, the arts, entertainment, and food services industries operate as a "bundle" that draws people to Arlington from other communities.

3. Arts, Culture and Tourism

Contemporary art and culture play an important part in Arlington's community identity and economy. Approximately 630 Arlington residents work in the visual, print, performing arts, and related fields. 52 Arts and cultural businesses and organizations spur economic activity not just by employing people, but by drawing patrons to the town's commercial districts where they can patronize adjacent businesses. This sector is also successful in attracting out-of-town consumer spending. Visitors tend to patronize nearby shops, services and restaurants before or after artistic and cultural events. The prime example of this economic association is with Arlington's two theaters: the Regent Theater and the Capitol Theatre, whose 200,000 annual patrons spend \$2.4 million on nearby shops, restaurants and service businesses, according to the "Economic Impact of Arlington's Theatres" report prepared for the Arlington Planning Department in 2013.53 In addition to the arts, historic and cultural tourism has similar economic benefits for local businesses.

Many local organizations promote and enhance local arts institutions and Arlington's history. Arlington established a Cultural Commission in 1993 (that, after a defunct period, was reactivated and renamed as the Commission on Arts & Culture in 2013), and the Committee on Tourism and Economic Development (A-TED) in 2010. The Commission on Arts and Culture is tasked with preserving cultural and artistic resources and promoting Arlington as a significant cultural destination through marketing, education, advocacy, and related activities, including the compilation of a long-term cultural plan and advising the Town on cultural or artistic matters. In addition, Arlington became a charter member of

⁵² ACS 2008-2012, Table C24030.

⁵³ See also, Margaret Collins, Cambridge Economic Research, Economic Impact of Arlington's Theatres (September 2013), prepared for Arlington Planning Department.

the Battle Road Scenic By-Way Committee in 2013, a regional partnership of Battle Road communities (Arlington, Bedford, Concord, and Lexington) and of the Minuteman National Historical Park, which jointly promotes and enhances tourism along the length of the Battle Road area.

4. Commercial and Industrial Development

Arlington has three main commercial centers located along the length of Massachusetts Avenue, with additional neighborhood-scale business activity on Broadway, Chestnut, and Mystic Streets, and a mix of older commercial and industrial uses in pockets along Summer Street. Industrial parcels are located along the central parts of the Mill Brook and the Minuteman Bikeway. These areas fall under six unique business districts and one industrial district.

PROPERTY CHARACTERISTICS

The inventory of commercial and industrial property in Arlington includes 415 parcels with a combined area of 193 acres and about 2.5 million sq. ft. of floor space.⁵⁴ Collectively these properties generate over \$6 million in property tax levies. In addition, the industrial properties also generate personal property taxes (\$222,700 in FY 2014). Approximately eighty of these parcels are mixed use, i.e. have both nonresidential and residential functions. Between FY 2009 and FY 2014, the amount of real and personal property taxes paid by nonresidential and mixed-use property owners in Arlington increased by 28 percent.⁵⁵

Several commercial properties were recently sold in Arlington, including fourteen mostly office and industrial spaces between 2011 and 2013 for an average of \$184 per sq. ft. As of February 2014, about 27,000 sq. ft. of retail, industrial, and office space was available for lease, with rents ranging from \$13.33 per sq. ft. (industrial/flex space) to \$45 per sq. ft. (retail and office space), averaging about \$25 per sq. ft. 56 The Arlington Planning Department started tracking commercial vacancies in 2013, and last reported that about 3 - 5% of the town's commercial space is vacant and available for rent. What is not reported, however, is whether all rented, "occupied" commercial space is fully utilized.

PLANNING FOR ECONOMIC GROWTH

In 2010, the Town conducted a vision and revitalization study of all commercial areas. Arlington wanted an assessment of each district's advantages and needs in order to create realistic strategies to carry out the study's recommendations. The study produced an implementation document entitled *Town of Arlington: A Vision and Action Plan for Commercial Revitalization*, focused on Arlington Center but also promoted several ideas for Arlington Heights and East Arlington. Table X.6 summarizes the priorities addressed in this plan.

⁵⁴ Arlington GIS, RKG Associates (March 2013).

⁵⁵ Massachusetts Department of Revenue, Division of Local Services, Municipal Data Bank.

⁵⁶ Loopnet Commercial Real Estate Listings, February-March 2014.

Table X.6. Commercial Center Findings, Vision and Action Plan (2010)								
Commercial Area	Retail Mix	Issues	Solutions					
Arlington Heights	Home improvement, sports, hobby stores	Business retention, organization, promotion	Short term: Improve marketing by enhancing district website; update business directory Long term: Redevelop key commercial sites with high-value retail and mixed-use structures.					
East Arlington	Capitol Theatre, arts and crafts, cinema, galleries, boutiques and eateries, local convenience shopping; thriving businesses, collaborative efforts.	Issues: poor physical condition (signs, commercial storefronts, public infrastructure), parking	Short term: Improve parking availability, enhance district website Long term: Improve Mass. Avenue streetscape					
Arlington Center	Civic, social, cultural heart of the Town; restaurants, stores, religious institutions, schools	Physically disorganized, visually incoherent; infrastructure, streetscape, public works, parking, marketing	Short term: Improve streetscape, upgrade signage Middle term: Plaza, restore storefront facades Long term: Reconfigure Russell Common Lot, renovate Broadway Plaza					
Source: Koff & Associate	s (2010).		,					

It contains numerous proposals to improve the appearance, operations, and economy of all three areas. For Arlington Heights, for example, recommendations range from streetscape improvements and parking management to business promotion, wayfinding strategies, creating better connections between open spaces along the Mill Brook, and effective use of an economic development coordinator for business revitalization.

The continued success of all three main commercial districts is desired by residents and town officials. Of the 4,400 respondents to Arlington's 2012 Vision 2020 survey, 67 percent rated "distinctive commercial centers" as important or very important to the town. In addition, many long-time residents are pleased with the evolution of the business districts, saying that over time they have changed considerably as old family-owned car dealerships gradually gave way to restaurants, housing, and other uses. As one town official said, "We're no longer known as the town with nothing but banks and pizza parlors." Residents have also expressed support for economic development opportunities for start-up businesses. Some people think the Town has developed an "anti-business" reputation and that its Zoning Bylaw is antiquated, unresponsive to changing market forces, and procedurally difficult. A recent Economic Development Self-Assessment Tool (EDSAT) study of Arlington's

economic development strengths and weaknesses identifies several potential "deal makers" and "deal breakers" to economic growth. 57

5. Other Conditions and Trends

ECONOMIC DEVELOPMENT SELF-ASSESSMENT TOOL (EDSAT)

- **Strengths:** Arlington has a highly-educated workforce with a large number of professionals, production of informative material to explain local permitting processes, and more amenities than comparable communities.
- Weaknesses: Arlington has some permitting procedures that take longer than those in other communities, restricted on-site parking; relatively high rents for some types of office, manufacturing, and retail space, lack of Class A office space, limited or no use of available state incentives for economic growth such as infrastructure grants, tax incentives or the Massachusetts Expedited Permitting Law, and regionally high housing costs.

PROPERTY TAX POLICIES

Arlington has a lower tax rate than most of the surrounding towns and cities. As per the policy of the Board of Selectmen, Arlington does not impose a higher tax rate on commercial, industrial, and personal (CIP) property than on residential property (See Table X.7). Their reasoning is that doing so would provide little fiscal benefit given the small size of the CIP levy, and would thus only increase expenses for small local businesses.

Table X.7. Tax Rate and Tax Base Trends								
Community	FY2014 Pro	FY2014 Property Tax % Change		inge	Tax Base	% Chg.	Median	% Chg.
	Rate	es	FY07-F	Y14	Res. %	FY07-	Home Value	FY06-FY13
						FY14	(2013)	
	Residential	C/I/P	Residential	C/I/P				
ARLINGTON	\$13.79	\$13.79	25.9%	25.9%	93.9%	-0.7%	\$483,000	8.1%
Belmont	\$13.50	\$13.50	30.9%	30.9%	94.4%	-0.4%	\$687,850	11.1%
Cambridge	\$8.38	\$20.44	12.0%	11.7%	61.3%	-2.5%	\$550,000	23.6%
Lexington	\$15.51	\$29.56	36.8%	35.5%	86.6%	-1.9%	\$761,250	14.5%
Medford	\$12.25	\$24.01	37.8%	33.9%	87.5%	-1.7%	\$375,000	-1.3%
Somerville	\$12.66	\$21.51	24.7%	29.0%	83.6%	-2.4%	\$486,750	22.8%
Winchester	\$12.66	\$11.91	22.6%	23.5%	94.6%	-0.4%	\$737,200	24.9%
Sources: Massachusetts Department of Revenue; RKG Associates, Inc.								

6. Economic Development and Arlington's Fiscal Health

Arlington residents have concerns about the future of the business districts on Massachusetts Avenue and the older industrial areas, many of which are underutilized and seemingly ripe for redevelopment. Many believe the Town has allowed too much residential development in non-residentially zoned areas, resulting in a decrease of the commercial tax base that then places a greater share of municipal public costs on town residents. However, although some recent changes have affected revenues, the

⁵⁷ Economic Development Self-Assessment Tool Results for the Town of Arlington (EDSAT); Northeastern University, Dukakis Center for Urban and Regional Policy. June, 2012, pp 6-7.

tax burden shift that has occurred in Arlington has roots that pre-date the recent conversion of old commercial space to multifamily dwellings.

After the recession of the early 1990s, Arlington's property values dropped significantly. Adjusted for inflation they have not yet fully recovered. Meanwhile, the housing market boom that began at the end of the 1990s in the Boston Metro-area led to skyrocketing housing values in Arlington – value growth that was exacerbated, but not entirely caused, by new development (see Figure X.4).

As values rose, the tax rate fell, yet between 2000 and 2013, Arlington's single-family tax bill was almost always in the top fifty for the state as a whole (Figure X.5). By 2013, the portion of the CIP tax base was just 6 percent, down from 9 percent in the late 1980s.⁵⁸ To restore the CIP tax base to prerecession levels would require major land use and density changes in Arlington's commercial and industrial districts. For example, achieving a CIP share of 8 percent would require about twice (1.93 times) the amount of commercial floor space that currently exists in Arlington; this is roughly equivalent to adding another story of space to each existing commercial structure in town.

C. ISSUES AND OPPORTUNITIES

LONG-TERM EMPLOYMENT PROJECTIONS AND SPACE NEEDS

Utilizing state employment projections to 2020, as obtained from the Executive Office of Labor and Workforce Development (EOLWD), a range in local employment can be estimated by varying the capture rate by different industry sectors based on Arlington's employment between 2008 and 2012. This estimate can assist in determining building space needed to accommodate employment growth over the next several years (Table X.8).

- Private-sector employment in Arlington is forecasted to rise to a range between 6,816 and 7,475 jobs in 2020, compared to 6,534 jobs recorded in 2012.
- Most of this increase is projected to occur in health care / social assistance, professional / technical services, and finance / insurance sectors.
- The forecasted increase in local employment could translate into the potential need for 160,000 sq. ft. of office space, 50,000 sq. ft. of industrial/flex space, and 76,000 sq. ft. of retail/commercial space.

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⁵⁸ Massachusetts Department of Revenue (DOR), Division of Local Services (DLS), Municipal Data Bank.

			2012				Pote		Building Requirements [2] (SF)		
				Jobs	202	0 [1]	Chan 20	ge ву 20	Industrial/	Office/	
Industry	2001	2008	2010	2012	Low	High	Low	High	Flex	Insti- tutional	Commercia
23 - Construction	469	422	366	431	383	449	(48)	18	8,768		
31-33 - Manufacturing	274	123	119	109	124	135	15	26	13,178		
42 - Wholesale Trade	89	126	118	129	116	134	(13)	5	2,275		
44-45 - Retail Trade	1,202	933	893	916	864	883	(52)	(33)			N/A
48-49 - Transportation and Warehousing	11	30	48	51	31	53	(20)	2	874		
51 - Information	216	103	228	228	101	235	(127)	7		1,312	
52 - Finance and Insurance	328	305	289	367	364	474	(3)	107		21,392	
53 - Real Estate and Rental and Leasing	186	178	165	140	139	1 <i>7</i> 1	(1)	31		6,127	
54 - Professional and Technical Services	671	480	342	359	431	593	72	234		46,709	
56 - Administrative and Waste Services	359	356	270	321	302	372	(19)	51	25,325		
61 - Educational Services	569	209	201	232	229	252	(3)	20		3,972	
62 - Health Care and Social Assistance	1,194	1,526	1,470	1,569	1,848	2,007	279	438		87,625	
71 - Arts, Entertainment, and Recreation	92	160	146	134	164	201	30	67			23,475
72 - Accommodation and Food Services	660	696	685	728	716	734	(12)	6			2,060
81 - Other Services, Ex. Public Admin	539	549	655	695	726	841	31	146			51,045
Total	7,011	6,325	6,124	6,534	6,816	7,475	129	1,122	50,420	167,136	76,581

^[1] Range based on Arlington's representation of statewide employment by sector for 2008, 2010 or 2012.

Source: MA Executive Office of Labor & Workforce Development, ULI & RKG Associates, Inc.

These are relatively modest demands given the existing inventory of commercial and industrial floor space.

RETAIL SERVICE POTENTIAL

The existing retail/commercial base in Arlington underserves its population and local spending dollars are leaving town. Arlington has 101 retail-classified parcels and forty-five parcels classified with autorelated uses, totaling less than 1 million square feet of combined commercial space. Arlington lacks a mid- or large-scale shopping mall or plaza, as found in Cambridge and Somerville. As a result, households are inevitably making some basic purchases outside of Arlington resulting in "sales leakage." One business with retail strength is drug stores/pharmacies, which "imports" of sales, i.e. people from outside Arlington purchase goods at these businesses. Appendix 5-x exhibits the difference between actual retail sales and residential demand in Arlington.

^[2] Based on employment per building area at 500 SF for industrial; 200 SF for office; and 350 SF for commercial

If all leaked sales from Arlington residents were to be captured by Arlington stores, the town could support another 1.2 million sq. ft. of retail development. However, that would require 100 acres of land (at a floor area ratio (FAR) of 0.25), or 33 acres (with a 0.75 FAR). Under current and future market conditions, it may be possible to capture 10-30 percent of Arlington's leaked sales demand, depending on specific site requirements, parcel size/availability and whether local demand is strong enough to trigger construction activity among retailers and developers. Arlington could hypothetically support another 5,100 sq. ft. of car parts and tire stores. Likewise, there is demand for an additional 12,000 sq. ft. of grocery store space, though this small size is impractical. Arlington needs to strategically think about the goods and services residents want and the town's ability to provide land for those uses.

THE CREATIVE ECONOMY

Cultural activities and venues are important to Arlington residents. Vision 2020 surveys show that an overwhelming majority of residents consider cultural activities and historic resources as important characteristics of Arlington, and over half strongly support museums, galleries, and theatres as desirable land uses for new development. Identifying and addressing the needs of Arlington's arts-related workers could be important for the long-term success of any cultural tourism plan. Conducting an assessment of financial, spatial, technical assistance, marketing, events, and other needs of arts entrepreneurs could help the Town focus its efforts and determine how it can best support the creative economy, given Arlington's other economic development needs, e.g., business retention and recruitment or instituting financial, permitting, and other incentives for new business development.

REDEVELOPMENT OPPORTUNITIES

Like many towns and cities on the urban edge, Arlington has the potential for innovative commercial development that engages non-traditional business sectors, and/or pairs with other land uses. The following hypothetical redevelopment opportunities expose some of the ideas that Arlington needs to discuss. Moreover, since housing diversity and affordability are essential to a well-rounded economy, redevelopment opportunities such as these would most likely be strengthened if they include both residential and nonresidential components.

CO-WORK SPACE

Arlington has a significantly well-educated, home-based workforce. This demographic, combined with the strategic location between Boston, Cambridge and the Route 128 corridor, makes Arlington a potential location for new types of flexible, collaborative work spaces that allow home-based workers to interact with a diverse set of peers for sharing ideas, methodologies and services. These "coworking" facilities meet the greatest need of home-based workers – periodic social interaction in a professional, efficient and comfortable working environment that offers shared office services, such as conference rooms, professional-level printers, large kitchen facilities, messaging and reception services, typically not available in homes, coffee shops or other places.

The ability to lease space on a daily, weekly or monthly basis is attractive to individuals, and freelancers, as well as small technology, information and creative start-up firms with fluctuating funding and staffing levels. In Arlington, co-working spaces, business incubators and similar facilities can be created in existing under-utilized retail, office and warehouse/industrial properties with relatively little capital (mostly interior renovations that require little or no alterations to building

footprints or facades). Co-working spaces are generally more attractive when located in highly-accessible vibrant districts with a mixed use environment. The Arlington Heights, Arlington Center and East Arlington business districts could be ideal sites for these types of shared workspaces.

D. RECOMMENDATIONS

1) Amend the Zoning Bylaw to increase density in the business districts.

The B1 district helps to preserve small-scale businesses in or near residential areas, but changes in other business districts should be considered, too. The Town should allow higher-density and larger- scale development, particularly on Broadway and Massachusetts Avenue in East Arlington.

2) The Industrial district zoning should be updated in order to reflect current market needs. Whereas rezoning from Industrial to Business may not be desired or even possible due to present uses, some modifications to use regulations could be effective in business and job creation.

The following changes should be considered for the Industrial district:

- Remove the minimum floor area requirement of 2,000 sq. ft. for Personal, Consumer and Business Services. Some manufacturing facilities operate in small spaces, so it should be possible to subdivide available floor area if necessary to support smaller industrial operations.
- Allow all restaurants by right or special permit in the Industrial district. Patrons of dining establishments are now accustomed to finding restaurants in non-traditional settings. The restaurant industry is growing in the area, including fine dining and "chef's" restaurants. Due to the timing of operations, restaurants and manufacturing facilities can often share parking and access routes.
- Allow retail space by right or special permit in the Industrial district. Larger or industrial-type retail space may be served by current buildings, and allowing larger and less expensive properties to be used for retail may prevent their location outside of Arlington.
- 3) Promote new co-working centers to attract small business ventures, innovative companies, entrepreneurs, and currently home-based businesses. These contemporary work environments provide the facilities, services, and networking resource to support businesses and help them grow.

There has been an increasing amount of new co-work space across the nation. Co-work facilities lease offices, desks, or even shared benches for small businesses or individual entrepreneurs. They are meeting needs for comfortable, affordable, short-term work environments by providing monthly leases with maximum support. In the Boston area alone, several of co-work spaces have opened in Downtown Boston, the Seaport Innovation District, Central Square in Cambridge, Field's Corner in Dorchester, Chelsea, and more. These well-designed and well-equipped offices provide twenty-four hour workspace, lounges, meeting rooms, sometimes food and drink, and most importantly, smart and exciting places to work. They provide more than just an address for a small business; they help to

"brand" the business with the collective work environment they inhabit. They are also a hub for networking, promotion, and events.

Arlington has many home-based businesses and freelance employees that could be attracted to work in these types of spaces. In addition, new entrepreneurs and small startup firms from Arlington and across the region would have a new, perhaps more accessible option for their operations. Other contemporary business models that often support co-work spaces include business incubators and accelerators. These facilities are operated as for-profit businesses, making equity investments in companies they host or as non-profit small business or workforce development projects. Supporting incubators or accelerators in Arlington's business scene is also worth investigating.

To develop or attract co-work space, business incubators and accelerators, Arlington should take the following steps:

- Engage with local co-work space providers in the Boston area to learn of their interests or concerns with the Arlington market. This process should include site visits to various co-work facilities in Boston, Cambridge, Chelsea, and Somerville. There should also be a continuation of the community engagement process begun by the Town in summer 2014. Meetings with residents, small business owners, and co-work space developers can help create customized business space for Arlington.
- Survey similar efforts by neighboring cities and towns, including the City of Boston and their current Neighborhood Innovation District Committee, which seeks to expand entrepreneurial small business development throughout the city.
- Identify incentives for small business creation that could be directed through the co-work, incubator or accelerator facility. Tax relief for the workspace property can be converted into cheaper individual rents. In addition, access to federal or state grants could be directed to the development and/or operation of these spaces. This could include, for example, CDBG funds, SBA grants, or specialty loan funds or products from MassDevelopment.

4) Invest in the promotion and support of Arlington's theatres

A recently completed study, *The Economic Impact of Arlington's Theatres* (2013) estimates the impact of the Regent and Capitol theatres on the local economy, particularly for restaurants that benefit from theatre patrons. Arlington should further invest in the promotion of these venues and providing supporting infrastructure.

5) Implement the recommendations contained in the Koff & Associates Commercial Center Revitalization report.

ARLINGTON HEIGHTS:

- Employ retention and recruitment strategies to achieve the desired business mix, thereby supporting local needs and drawing new customers.
- Revise the Zoning Bylaw to support desired and appropriate building placement, form, scale, density and mix of uses, including the Gold's Gym property.

- Continue to make parking enhancements.
- Make physical improvements where necessary (targeted deteriorated buildings, sites, and public realm).
- Encourage storefront façade and sign enhancements where needed.
- Adjust streetscape where needed to enhance pedestrian and bicycle safety, and walkability.
- Expand organizational support and business involvement.
- Keep the Arlington Heights business directory updated, and possibly replace slat signs with a map graphic that can be easily updated by the Town.

EAST ARLINGTON

- Create a unique identify and brand for Capital Square/East Arlington Business District.
- Organize a marketing and promotional program around the brand.
- Address parking needs in the district including shared parking, a permit program, new facilities, adjusted time limits, consistent enforcement, and the possibility of meters.
- As part of the Massachusetts Avenue Project, include walkability and street activation enhancements such as sidewalk areas for outdoor dining and entertainment, a business directory and information kiosk, gateway treatments, and wayfinding signage.
- Make physical improvements as necessary (i.e. deteriorated/underutilized sites and buildings, sites, infill development and redevelopment where appropriate).
- Facilitate building façade and sign enhancements including restorations, window signs and treatments, blade signs, sandwich board signs, lighting, and other enhancements.
- Continue to increase involvement by more businesses in the marketing, promotion and revitalization process.

ARLINGTON CENTER

- Revise the Zoning Bylaw to support desired and appropriate building placement, form, scale, density and mix of uses.
- Address parking needs in the district including shared parking, on-street parking additions, new facilities, adjusted time limits, and consistent enforcement.
- Make walkability and street activation enhancements such as sidewalk areas for outdoor dining and entertainment, a business directory and information kiosk, gateway treatments and wayfinding signage.
- Make physical improvements as necessary (i.e. deteriorated/underutilized sites and buildings, Sites, infill development and redevelopment where appropriate).
- Program as many civic events and gatherings as possible on all open spaces in the district throughout the year. Give as many local residents and tourists as possible as reason to visit Arlington Center on a regular basis.

- Facilitate building façade and sign enhancements including restorations, window signs and treatments, blade signs, sandwich board signs, lighting, and other enhancements.
- Organize and involvement the businesses community in the marketing, promotion, revitalization, business retention and recruitment, and event planning process.
- Create a website using Arlington Heights and East Arlington as examples.



7. HISTORIC AND CULTURAL RESOURCE AREAS

A. INTRODUCTION

Communities need to preserve the physical tapestry of historic buildings, structures, and landscapes for future generations. From Arlington's pivotal role in the events that precipitated the Revolutionary War to the lasting physical creations showcasing masterful architectural styles, and the legacy of founding families such as the Robbins, Arlington has much to celebrate, and much to preserve from over three and a half centuries of development.

Historic Resources are the physical remnants that provide a visible connection with the past. These include Arlington's historic buildings and structures, objects and documents, designed landscapes, and cemeteries. **Cultural Resources** are the tangible assets that provide evidence of past human activities, including both manmade and natural sites, structures, and objects that possess significance in history, architecture, archaeology, or human development. ⁵⁹ In Arlington, among others, this includes the heritage landscape of the Mill Brook, which represents generations of industrial development. Together, Arlington's collection of historic and cultural resources help tell the story of the modern, colonial, and Native American settlement of the land. These irreplaceable resources contribute to Arlington's visual character and sense of place.

B. EXISTING CONDITIONS

Arlington has a wealth of historic buildings, landscapes, sculptures, and other structures, as well as important collections of historic documents and artifacts housed in several historic sites.

1. Historic Buildings

Practically all architectural styles employed in the Boston region over the past 300 years are represented in Arlington, including Colonial, Georgian, Federal, and Greek Revival styles popular in the late eighteenth and early nineteenth century; the Second Empire, Gothic Revival, and Italianate styles fashionable in the mid-nineteenth century; the Romanesque, Queen Anne, and Shingle Styles of the late nineteenth century; and the Revival styles of the early-to mid-twentieth century. Arlington also has examples of mid-20th century Modern style residences and buildings worthy of documentation and appreciation. Arlington's historic architectural styles are represented in both "high-style" architect-designed buildings and more modest "vernacular" versions constructed by local builders, and they are rendered on a variety of building forms, including residential, commercial, religious, institutional, industrial, and governmental buildings.⁶⁰

⁵⁹ National Park Service, NPS-- Eultabal Resource Management Guideline, http://www.nps.gov/history/bistory/online_books/nps28/28intro.htm

⁶⁰ The Arlington Historical Commission (AHC) has documented many historic resources on Massachusetts Historic Resource Inventory forms. Unless noted otherwise, these inventory forms are the main source of historic and architectural information in

RESIDENTIAL BUILDINGS

Arlington's residential architecture benefits greatly from the diversity of its historic housing stock, both in terms of styles and scale. In many instances, Arlington's neighborhoods present an architectural history lesson as one travels down the tree-lined streets. Particularly in the town's older neighborhoods, houses of different styles sit side by side, displaying a variety of ornamental trim and embellishment. In some neighborhoods, a single architectural style might stand alone on the streetscape. This can be seen in the steep-gabled English Revival homes found in parts of Arlington Heights and in the mid-century housing of Arlington's post-war neighborhoods. Arlington's residential building forms also vary, including collections of both modest and grand single-family homes and multi-family residences ranging from small workers' housing built around early industries to large early twentieth century brick apartment buildings built along and near Massachusetts Avenue and other major transportation routes. Most historic or older homes are well cared for in Arlington. Homeowners generally take great pride in their historic homes, preserving and restoring the architectural details that make their homes special.

CIVIC BUILDINGS

The Town of Arlington owns an impressive collection of architecturally and historically significant buildings, including Town Hall, Robbins Library, several school buildings and fire stations, the Mt. Pleasant Cemetery chapel, and several historic houses. Most of Arlington's civic buildings were constructed in the early twentieth century as the small town transitioned into a more densely settled suburb. While the Town continues to use most of its buildings for their original intended purpose, it has converted several edifices to new uses while respecting the architectural integrity of each structure. Arlington values its municipal properties, which serve as both cultural landmarks and community gathering places, and has been a relatively good steward of these historic assets. The Town has undertaken interior and exterior restoration projects on many of its historic properties; however, several Town-owned historic resources, such as the Jefferson Cutter House, the Jarvis House, and the Winfield Robbins Memorial Garden are in need of repair.

CIVIC BLOCK

Located on Massachusetts Avenue in the heart of Arlington Center, the Civic Block contains three of Arlington's most iconic civic institutions – the Robbins Library, the Robbins Memorial Town Hall, and the Whittemore-Robbins House – all interconnected by the landscaped grounds and brick walkways of the Winfield Robbins Memorial Garden. The Civic Block represents the generosity of the Robbins family, who donated funds for construction of these impressive landmarks. All buildings within the Civic Block are well-preserved and designated within the Arlington Center National Register Historic District.

■ Robbins Library* (1892), 700 Massachusetts Avenue. Designed by the architectural firm of Cabot, Everett, and Mead in the Italian Renaissance style, the impressive historic edifice of the Robbins Library was reputed to be modeled after the Cancelleria Palace in Rome. This grand building is constructed of sandstone ashlar with elaborate architectural embellishment,

this plan. In some instances, historic names cited on inventory forms may conflict with commonly used names. For this plan, we have used historic names as identified on the town's inventory forms. Resources with an inventory form are noted by an asterisk (*).

including three-story arched windows, a limestone and marble portico, and a grand central rotunda. ⁶¹ The building's interior features an ornately detailed Reading Room. The building was modified with additions in 1930 and 1994, and in 2013 the Town replaced the original slate roof.

- Revival style by architect R. Clipston Sturgis, the sandstone Robbins Memorial Town Hall complements the adjacent Robbins Library. The Town Hall's three-bay façade features a central pavilion with projecting arcaded entrance porch. Two projecting pavilions accented by rusticated limestone and ashlar panels flank the porch. Balustrades crown both the entrance porch and roof cornice, and an ornate cupola capped by a pineapple tops the gable roof. Arlington restored the building's auditorium prior to holding a series of celebrations in 2013 to honor Town Hall's 100th anniversary. The Town received a Massachusetts Preservation Projects Fund (MPPF) grant from the Massachusetts Historical Commission (MHC) for its restoration efforts, requiring the Town to protect the building with a preservation restriction.
- Whittemore-Robbins House* (ca. 1795), 670R Massachusetts Avenue. Located at the rear of the Civic Block is the Federal-style Whittemore-Robbins House. This three-story wood and brick framed mansion features front and rear porches and a hipped roof crowned with an ornate cupola. The house was originally occupied by William Whittemore, a prominent local businessman and politician. The building was purchased by Nathan Robbins, a prosperous merchant at the Fanueil Hall market in 1847 and served as the Robbins family home until 1931, when the family donated the property to the Town. In 1890, the Robbins sisters relocated the house, rotating and moving it back from Massachusetts Avenue to allow for the construction of the Robbins Library. From 1976 to 1993, the Arlington Historical Commission (AHC) worked to restore the building's public rooms to their early residential condition. The building now serves as a meeting and function facility. The AHC and the Arlington Youth Consultation Center also maintain offices in the building.

FIRE STATIONS

Arlington's two historic fire stations were designed by architect George Ernest Robinson in the Georgian Revival style.

- Central Fire Station* (1926), 1 Monument Park in Arlington Center. This red brick and stone building was one of the first octagonal fire stations constructed in the United States. Its unique design allowed fire trucks to emerge simultaneously from six different directions. 62 The building's tower, originally designed to hang fire hoses to dry, continues to serve as a visual landmark in Arlington Center.
- **Highland Hose House*** (1928), 1007 Massachusetts Avenue. For this station, Robinson designed features to imitate those found on several of Boston's most iconic eighteenth and early nineteenth century buildings. The fire station's stepped gable ends and rounded windows are reminiscent of the Old State House, while its cupola and gilded grasshopper

⁶¹ Massachusetts Historical Commission, Form A – Area: Town Center Historic District.

⁶² Metropolitan Area Planning Council, Corridor Management Plan: Battle Road Scenic Byways: Road to Revolution, 57.

weathervane imitate Faneuil Hall. The building's interior is also architecturally and historically significant, with woodwork created by the Theodore Schwamb Company and a Cyrus E. Dallin bronze relief of one of Arlington's former fire chiefs in the lobby. In 2012, the Town completed a LEED-certified renovation of the building, including exterior repairs and interior renovations.⁶³

MUNICIPAL BUILDING REUSE

While most of Arlington's governmental buildings continue to serve their original civic purpose, the Town has converted several of its historic buildings to new uses, including former schools, a former library, and several houses. The Town leases the buildings noted below and several others not listed here to private groups, primarily for educational or civic purposes.

- **Central School*** (1894), 27 Maple Street. Arlington's first dedicated high school now serves as the Arlington Multi-Purpose Senior Center and is leased to variety of tenants. Designed by Hartwell and Richardson, the red brick and brownstone school building is elaborately detailed with a slate hipped roof, turreted dormers, and an arched entrance highlighted with brownstone relief panels.⁶⁴ In the 1980s, the building was rehabilitated and is now used as offices, and as a meeting space for public groups. The building is located within the Pleasant Street Local Historic District (LHD) and the Arlington Center Historic District.
- Parmenter School* (1927), 17 Irving Street. This former school was designed by architect Charles Greely Loring in the Colonial Revival style. The Town closed the school in 1983 and now leases the brick and stone building to two private educational institutions.
- Vittoria C. Dallin Branch Library* (1938), 85 Park Avenue, Arlington Heights. This former library is now leased by the Town to Arlington Community Media, Inc. (ACMi). This brick Colonial Revival style building was designed by Arlington architect William Proctor. 65
- Jefferson Cutter House* (ca. 1830), 1 Whittemore Park. Located on the corner of Massachusetts Avenue and Mystic Street in Arlington Center, the Federal-style Jefferson Cutter House was built for the owner of a local woodworking mill. The building features an ornate entrance with fluted pilasters and sidelights. The property is listed in the National Register of Historic Places. It was originally located further west on Massachusetts Avenue. In 1989, the Town worked with the then owner to purchase and relocate the building to a plot of land in Arlington Center. Afterward, the Town restored the house and developed the land in front as a public park (see Whittemore Park in *Historic Landscapes*). Today, the Arlington Chamber of Commerce leases space on the second floor and the Town provides the ground floor rooms for meeting and art exhibition space. The Cyrus Dallin Art Museum,

⁶³ Town of Arlington, Annual Report, 2012.

⁶⁴ Vision 2020, Map of Arlington.

⁶⁵ Duffy, Richard, Then & Now: Arlington, 70.

⁶⁶ Laskowksi, Nicole, "Jefferson Cutter House hits milestone", posted December 4, 2009, Wicked Local Arlington, www.wickedlocal.com/arlington/news

operated by a private non-profit organization, rents the first floor as gallery space to exhibit a valuable collection of Dallin's original sculptures, documents, and other works.

- **The George Croome House*** (ca. 1862), 23 Maple Street. This Second Empire style home previously served as the Arlington Public Schools Administration Building. The Town now leases the building to a group home. The building is located within the Pleasant Street Historic District (LHD) and the Arlington Center Historic District (NR).
- The John Jarvis House (1831), 50 Pleasant Street, is a Federal style former residence that is located within both the Arlington Center Historic District (NR) and the Pleasant Street Historic District (LHD).
- **The Gibbs Junior High School** at 41 Foster Street in East Arlington is a former brick school that the Town now leases to the Arlington Center for the Arts.

OTHER GOVERNMENT BUILDINGS

Arlington's **U. S. Post Office** (1936) is located at 10 Court Street in Arlington Center. Constructed as a Works Progress Administration (WPA) project, this red brick building is designed in the Classical Revival style. The building's lobby features a Federal Art Project mural "Purchase and Use of the Soil" by artist William A. Palmer. Completed in 1938, the Art Deco style mural depicts the Squaw Sachem transferring the land of Menotomy to the English Settlers in 1635.

The **Arlington Pumping Station*** (1907) on Brattle Court is a single-story Renaissance Revival brick structure designed by C. A. Dodge for the Metropolitan Water System. This building, which was constructed to supply Arlington with drinking water, was surveyed several times on historic resource inventory forms and has a preliminary evaluation as eligible for listing on the National Register of Historic Places.

HISTORIC BUILDINGS AS CONTEMPORARY CULTURAL VENUES

History and the arts are interwoven in Arlington, with many historic buildings providing venues for performance space as well as art exhibits and contemporary cultural programming. Auditoriums at Arlington's Town Hall and High School, as well as spaces within the Town's public libraries and in private churches, theaters, and community halls, provide rehearsal and performance space for dance, choral, and other performing arts groups. Two historic theaters continue to serve in their original capacity as community cultural spaces. In Arlington Center, the Classical Revival style **Regent Theater** (ca. 1930) continues to present live theater, music, movies, and other performance programs each year. **The Capitol Theater***, a Classical Revival style building was constructed in 1925. Its later division from one hall to multiple screening rooms was done with consideration to preserve early twentieth-century details. It remains a popular moving picture theater in the Boston area and continues to serve as a community landmark on Massachusetts Avenue in East Arlington. Both theaters are listed in the National Register of Historic Places.

Arlington also has several other historic buildings that have been renovated and repurposed as performance and studio spaces. The Arlington Center for the Arts, a private arts organization, leases

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⁶⁷ Friedberg, Betsy, Form B – Building Form: Capitol Theater Building, December 1984.

some of the space in the former **Gibbs Junior High School** in East Arlington, while the nonprofit Arlington Friends of the Drama presents live community theater in the former **St. John's Episcopal Church*** (1877), a Stick Style church on Academy Street located within the Arlington Center National Register District and the Pleasant Street Local Historic District.

HISTORIC COMMERCIAL DISTRICTS

Massachusetts Avenue is Arlington's primary commercial corridor and the "spine" of the town. It is steeped in history as the site of battle during the first day of the Revolutionary War on April 19, 1775. A segment of Massachusetts Avenue, which extends through Concord, Lincoln, Lexington, and Arlington, received state designation as the Battle Road Scenic Byway in 2006 and awaits consideration as a National Scenic Byway. In Arlington, Massachusetts Avenue contains a varied collection of eighteenth, nineteenth, and twentieth century buildings including single-story commercial blocks, multi-story mixed-use commercial buildings, and Classical Revival masonry apartment buildings interspersed with earlier wood-frame houses, including two from the eighteenth century. Arlington's three commercial districts, Arlington Heights, Arlington Center, and East Arlington, are located along Massachusetts Avenue.

CHURCHES

Arlington's religious structures represent the various architectural styles associated with ecclesiastical design over the past several centuries, including a modest eighteenth century Federal style meetinghouse, elaborately detailed Greek Revival/Italianate and Stick Style churches, a romantic stone Gothic Revival Chapel, and several large masonry Neo-Gothic Revival churches. The AHC has documented seventeen of Arlington's churches, chapels, and parish halls on historic resources inventory forms. Six of Arlington's churches are designated within a local historic district and seven are listed in the National Register of Historic Places. One building, the **Pleasant Street Congregational Church*** (now Boston Church of Christ), is further protected by a preservation restriction because it received Massachusetts Preservation Projects Funds (MPPF) for exterior restoration work.⁶⁸

MUSEUMS

Arlington has three historic buildings that are open to the public as museums. The Town-owned Jefferson Cutter House hosts the Cyrus Dallin Art Museum, which is managed by a nonprofit organization. Two other museums are owned and operated by private nonprofit organizations.

- The Jason Russell House and Smith Museum (1740), 7 Jason Street in Arlington Center. Operated by the Arlington Historical Society (AHS), the house was the site of fighting on the first day of the American Revolution and still bears several bullet holes from the battle. The museum houses the Society's collection of artifacts, manuscripts, and other Arlington memorabilia, and displays artifacts from the Russell family, who lived in the house until 1896. The property also includes an herb garden maintained by the Arlington Garden Club. In 1980, the AHS constructed the adjoining Smith Museum for archival and exhibit space.
- **The Old Schwamb Mill** (1864), Mill Lane. The museum honors the industrial legacy of the Mill Brook and is one of the early mills established on its waterway. Operated by a nonprofit charitable education trust, the Old Schwamb Mill is a living history museum that presents

⁶⁸ Massachusetts Historical Commission, "List of Grant Recipients", http://www.sec.state.ma.us/mhc

special exhibits and a variety of programs for its members and the community. The current mill building was built in 1864 by Charles Schwamb for his picture frame factory, which specialized in round and oval frames made on unique elliptical faceplate lathes. Much of the machinery and extensive archive are still intact and the Mill continues to craft handmade frames to the exacting standards of five generations of Schwambs.

2. Historic Landscapes

Arlington's historic landscapes are as varied as the town's historic buildings, representing both formal landscapes designed by landscape architects and heritage landscapes formed by generations of human interaction with the land. In addition to offering a visual respite from the town's densely-settled built environment, these landscapes serve as community gathering spaces and areas for quiet contemplation.

Designed Landscapes. Arlington Center has two public green spaces, both designed as part of building projects.

- The Winfield Robbins Memorial Garden* (1913) was laid out as part of the Town Hall construction project in 1913. The original garden design included the Cyrus Dallin sculpture *The Menotomy Indian Hunter*. In 1939, Olmsted Associates reconfigured the garden in a more natural design with a rubble rock base for the Indian sculpture, flowering trees and bushes, winding brick paths, a circular fountain and a pool, and a masonry garden wall surrounding the grounds. The Town has prepared a preservation master plan for the garden and repairs to the garden's sandstone and limestone wall were completed in 2013. The Friends of Town Hall Gardens has also undertaken some restoration work to the landscape. The garden is protected by a preservation restriction and is used for both community and private events.
- Whittemore Park is a small park in front of the Jefferson Cutter House that was created when the Cutter House was moved in 1989. In addition to several mature trees, park benches, and interpretive signage, the irregularly shaped park at the corner of Massachusetts Avenue and Mystic Street is intersected by a small section of exposed railroad tracks, which are the remains of a railway line (established in 1846) that once bisected the community. To the east and west of the park, the former railroad track is now the Minuteman Bikeway. Arlington uses the park to host art exhibits and community events throughout the year.

Heritage Landscapes. The Massachusetts Department of Conservation and Recreation (DCR) operates the Historic Landscape Inventory Program, which completed Heritage Landscape Studies for communities in the Freedom's Way Heritage Area, including Arlington, in 2006. Arlington's report identified 63 heritage landscapes in the community and highlighted six for future study—the Battle Road Corridor; the Butterfield-Whittemore House at 54 Massachusetts Avenue; Great Meadow/Mill Brook Drainage System; the Mugar Property adjacent to Thorndike Field; Spy Pond and adjacent parkland; and the W. C. Taylor House at 187 Lowell Street.⁶⁹

⁶⁹ MA Department of Conservation and Recreation, Massachusetts Heritage Landscape Inventory Program: Arlington Reconnaissance Report, 2006.

One of the priority landscapes identified was the Mill Brook, which flows from the Arlington Reservoir to the Mystic Lakes. The Mill Brook has deep historical and cultural roots dating back to the 1630s when Captain George Cooke build the first water-powered grist mill in Arlington (then Cambridge), now known as Cooke's Hollow on Mystic Street. Originally called Vine Brook and later Sucker Brook, the 2.7-mile long Mill Brook has an elevation drop of more than 140 feet, which provided water power significant enough to power small industrial ventures along its banks. 70 During the industrial period, a series of mill ponds and dams lined the brook. After decades of reconfiguration and development, much of the brook is culverted with only limited portions of the waterway are still exposed. The impression of the original Old Schwamb Mill pond is still visible as a Town--owned grassy park on Mill Lane near Lowell Street. The other ponds have been filled in for playing fields and other uses.

The Town is committed to preserving the natural and historic legacy of the brook and is exploring opportunities to enhance the area as park space and a buffer zone to nearby commercial and residential neighborhoods. The Town has completed two planning studies on the Mill Brook, with the most recent report completed in 2010. The Mill Brook Linear Park Report provides an historical overview of the brook, land characteristics and issues, and an analysis of current conditions, challenges, and opportunities.

3. Historic Structures

Arlington has documented twenty-eight structures on historic inventory forms (see Appendix 6.1). These structures include former railway bridges, a dam on the Mystic Lakes, several parks, garden landscapes, conservation lands, and the early twentieth century Mystic Valley Parkway. Many of the structures are owned by state agencies as part of regional transportation and water systems. One of Arlington's most distinctive structures is the **Arlington Reservoir Standpipe*** (1921), also known as the Park Avenue Water Tower, which occupies the crest of one of the town's highest hills. Arlington architect Frederic F. Low designed the 85-ft. tall tower based on the ruins of a Greek temple visited by the Robbins sisters, who donated funds for the structure.⁷¹ The tower consists of a steel tank surrounded by a granite shell with twenty-four limestone columns, a decorative cornice, and concrete dome roof. The structure was listed on the National Register in 1985.⁷²

4. Historic Objects

Arlington's historic objects span more than two centuries (see Table X.1). Due to the town's association with nationally renowned sculptor Cyrus E. Dallin (1861-1944), who lived in Arlington for over 40 years, Arlington has a significant collection of his artwork, including the Town-owned *Menotomy Indian Hunter** in the Winfield Robbins Memorial Garden, the *Robbins Memorial Flagstaff** at Town Hall, and *My Boys* in the Robbins Library. The Cyrus Dallin Art Museum, located in the Jefferson Cutter House, maintains a collection of more than 60 works of art by

⁷⁰ Mill Brook Linear Park Study Group, Mill Brook Linear Park Report, April 2010, 3.

⁷¹ Duffy, Then & Now: Arlington, 75.

⁷² Louis Berger & Associates, Form F – Structure: Arlington Standpipe, 1984, revised 1989.

Dallin.⁷³ (See later discussion of Museum's collections in Section D: Historic & Cultural Resource Planning) Town Meeting established the museum in 1995 to collect, preserve, protect, and exhibit the works of the celebrated American sculptor. In the 1990s, Arlington completed a conservation project to preserve these objects. Other inventoried sculptures in Arlington include the late-twentieth century *Uncle Sam Memorial Statue** in Arlington Center, designed by sculptor Theodore Barbarossa of Belmont.⁷⁴

Table X.1. Documented Historic Objects							
Name	Date	Location					
Milestone	1790	Appleton Street					
The Guardian Angel Rock	1920	Claremont Avenue					
Robbins Memorial Flagstaff	1913	Mass. Avenue					
Arlington Civil War Memorial	1886	Mass. Avenue					
Menotomy Indian Hunter	1911	Mass. Avenue					
Uncle Sam Memorial Sculpture 1976 Mass. Avenue							
Source: MACRIS, accessed August 26, 2013.							

Despite widespread appreciation of public art, Arlington has documented only the six historic markers, sculptures, and objects noted above on historic resource inventory forms. Notably missing are most of Dallin's public art pieces, as well as the ca. 1912 decorative concrete *Play Fair Arch and Wall* at Spy Pond's Hornblower Field⁷⁵, the historical markers along Massachusetts Avenue commemorating April 19, 1775, the granite watering trough at the Foot of the Rocks donated by the Robbins sisters in memory of their brother, and the bronze tablet in Cooke's Hollow Park commemorating the site of the first mill (1637) in Menotomy.

5. Burial Grounds and Cemeteries

The Town of Arlington maintains two public cemeteries: the Old Burying Ground on Pleasant Street in Arlington Center and Mount Pleasant Cemetery on Medford Street. Established in 1732, the **Old Burying Ground*** is Arlington's oldest cemetery. Located behind the First Parish Unitarian Universalist Church, the burial ground includes an impressive collection of early slate markers dating from ca. 1732. The Old Burying Ground is included in the Arlington Center National Register District and is protected with a preservation restriction. The **Mount Pleasant Cemetery*** (established ca. 1843) is a 62-acre cemetery highlighted by the **Cemetery Chapel*** (1930), a Gothic Revival chapel designed by the architectural firm of Gay & Proctor, a large entrance gate, Victorian-era marble monuments, and contemporary granite markers. Although still active, the cemetery is almost full and the Town is considering options for continuing interments at the facility.

⁷³ Cyrus E. Dallin Art Museum, http://dallin.org

⁷⁴ Arlington Historical Society, Menotomy Minuteman Historical Trail.

⁷⁵ MA Department of Conservation and Recreation, Massachusetts Heritage Landscape Inventory Program: Arlington Reconnaissance Report, 2006, 8.

⁷⁶ The Burying Ground is also referred to as "Arlington Old Cemetery" and "First Parish Church Old Burying Ground" on the Historic Resource Inventory Form completed for this site.

The site of the **Prince Hall Mystic Cemetery*** (1846) on Gardner Street in East Arlington marks the only Black Masonic Cemetery in the United States. Today, a monument and small park mark the site where members of the Prince Hall Grand Lodge F & AM, formed in 1776, were buried. Though much of the original cemetery has been developed, a 1988 geophysical survey of the site by students of Boston University's Archaeological Department found remains of the original gate and an obelisk. In 1987, after learning about the cemetery, the Arlington Historical Society collaborated with the Prince Hall Grand Lodge of Dorchester to form the Prince Hall Mystic Arlington Cemetery Association to preserve and protect the site. The group restored the site with donations from the Prince Hall Grand Lodge and CDBG funds from the Town of Arlington. In 1990, the group rededicated the cemetery, and in 1998 the cemetery was listed in the National Register of Historic Places. Nearby at the corner of Broadway and Alewife Brook Parkway is **St. Paul Catholic Cemetery**, built in the late nineteenth century and associated with St. Paul Church in North Cambridge.

6. Archeological Resources

While Arlington has not conducted a community-wide archaeological reconnaissance survey, it has completed several site-specific archeological studies. In addition to the geophysical survey for Prince Hall Cemetery, the Town commissioned archaeological excavations along the shore of Spy Pond when it renovated Spy Pond Field in the early 1990s. Resources uncovered during the project include prehistoric lithic chipping debris and structural remains from the nineteenth and early twentieth century ice industry buildings. Since Arlington is located within an area of Massachusetts that was settled centuries before the first English settlers arrived, it is realistic to imagine that other significant archaeological resources may exist within Arlington despite the town's intense development.

Any significant archaeological sites identified in Arlington will be included in the MHC Inventory of Archaeological Assets of the Commonwealth. This confidential inventory contains sensitive information and is not a public record as required under M.G.L. c.9, s. 26A (1).

7. Historic Collections

In addition to Arlington's historic built assets and heritage landscapes, the town also maintains significant collections of historic records, documents, and artifacts. These collections are retained in various locations including at the Town Hall and the Library and within the private collections of the Arlington Historical Society, the Cyrus Dallin Museum and the Old Schwamb Mill. Artifacts contained in these collections include historic documents, meeting records, photographs, postcards, furniture, and sculpture. Maintaining these collections can be challenging for local groups due to limited archival space and ongoing conservation needs.

8. Historic and Cultural Resource Planning

Arlington has three Town-based organizations dedicated to preserving the community' historic resources: the Arlington Historical Commission; the Arlington Historic District Commissions; and the Arlington Preservation Fund, Inc. All three groups are involved with preservation planning, advocacy, and resource management. A fourth organization, the Arlington Historical Society, is a private

⁷⁷ Town of Arlington, Open Space and Recreation Plan, 70.

nonprofit organization dedicated to preserving the town's heritage, in particular the Jason Russell House and its artifacts and memorabilia. Other groups, such as the Old Schwamb Mill, the Cyrus Dallin Art Museum, and the Arlington Public Library focus on the preservation of specific sites and historic artifact and document collections. Town boards such as the Cemetery Commission, the Redevelopment Board, the Conservation Commission, and the Arlington Tourism and Economic Development Committee (A-TED) also participate in preserving Arlington's historic character. Many of these boards have overlapping membership and have collaborated on past efforts to preserve and promote the town's history.

MUNICIPAL BOARDS AND COMMITTEES

Arlington Historical Commission (AHC). Local historical commissions (LHC) are established under Massachusetts General Law, Chapter 40, Section 8D, as the official municipal agencies responsible for community-wide historic preservation planning. LHCs work in cooperation with other municipal departments, boards, and commissions to ensure that the goals of historic preservation are considered in community planning and development decisions. LHCs also serve as local preservation advocates and are an important resource for information about their community's cultural resources and preservation activities.⁷⁸

The Arlington Historical Commission is a seven-member volunteer board responsible for community-wide historic preservation planning and advocacy. The AHC is also responsible for administration of the town's demolition delay bylaw and provides guidance to other municipal departments, boards, and commissions to insure that historic preservation is considered in community planning and development decisions. The Commission's activities include historic resource surveys, National Register nominations, preservation restrictions, preservation awards, and community education and outreach. The AHC also operates a sign program, providing historic markers for inventoried properties. The AHC's website, www.arlingtonhistoricalcommission.org, provides a list of historically significant structures in Arlington (Historic Structures Inventory) as well as information about the Town's demolition delay bylaw and Preservation Loan Fund.

Arlington Historic District Commissions (AHDC). The AHDC is Arlington's municipal review authority responsible for regulatory design review within the Town's seven designated local historic districts adopted under M.G.L. C. 40C. In Arlington, seven separate commissions oversee changes to these districts. All seven commissions share the same six volunteer members, including an architect, a real estate professional, and a representative from the Arlington Historical Society, with the seventh member consisting of a resident or property owner from the respective district. The AHDC meets monthly to review the architectural appropriateness of most proposed exterior design changes to properties located within the town's historic districts.

Arlington Preservation Fund, Inc. The Arlington Preservation Fund provides low interest loans for restoration work on historic properties. Originally established with Community Development Block Grant (CDBG) funds, the program approved its first loan in 1984 and has closed its 100th loan. The program is maintained as a municipal fund managed by an independent, non-profit board that

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⁷⁸ Massachusetts Historical Commission, Preservation through Bylaws and Ordinances, Draft, 2009, 4.

oversees the distribution of funds. The nine-member board includes representatives from the Historical Commission, the Schwamb Mill, the Historical Society, and the Historic District Commissions as well as the Planning Director, an architect, lawyer, real estate professional, and a financial officer. To be eligible for funding, a property must be located within an historic district, inventoried, or otherwise deemed important by the fund's board.⁷⁹

Arlington Public Library. Arlington's Public Library, including the Robbins Library and the Fox Branch Library, is a public institution and community resource that promotes the historical, social, and cultural development of the town. The Robbins Library's Local History Room maintains a collection of historic books, scrapbooks, annual reports, atlases, photographs, postcards, slides, vertical files, other ephemera documenting Arlington's history.

LOCAL PRIVATE NONPROFIT ORGANIZATIONS

Arlington Historical Society. The Arlington Historical Society was founded in 1897 as a private non-profit organization dedicated to collecting and preserving historic artifacts relating to Arlington's history. In 1923, the Society acquired and restored the Jason Russell House as a historic house museum. In 1980, the Society constructed the Smith Museum to provide exhibition and meeting space as well as a climate controlled archive. The society offers rotating exhibits and educational programming on local history, including an evening lecture series and member presentations. ⁸⁰

Cyrus Dallin Art Museum. The Dallin Museum manages and preserves the historic collection of Dallin's art work, including freestanding and relief sculptures, coins, medals, and paintings. The Museum also exhibits artifacts owned and used by Dallin as well as commercial items that demonstrate the far-reaching effects of the artist's work on popular culture. ⁸¹ The museum also manages an archive with photographs, letters, exhibition catalogs and other documents of Cyrus Dallin. In addition to its efforts relating to Dallin's legacy, the organization also presents lectures, exhibits, and other programming on local history and culture.

Old Schwamb Mill Preservation Trust, Inc. Founded in 1969 to save the Old Schwamb Mill, the Trust now owns and manages the mill as a historic museum (see previous description). The Trust maintains a collection of artifacts and records relating to the mill and its history in the community.

REGIONAL PRESERVATION ORGANIZATIONS

Freedom's Way Heritage Association (FWHA). Arlington is one of 37 communities in Massachusetts and New Hampshire that are part of the Freedom's Way National Heritage Area, designated by Congress as a nationally significant area where historical, cultural, and natural resources combine to form a cohesive, common landscape. The Freedom's Way Heritage Association manages and coordinates efforts to build civic appreciation and understanding of unique assets and stories of the area. The organization's website highlights historic resources present in each participating community, including Revolutionary sites in Arlington.

⁷⁹ Arlington Preservation Fund website, http://www.arlingtonpreservation.org/

⁸⁰ Arlington Historical Society website, http://arlingtonhistorical.org.

⁸¹ Cyrus E. Dallin Museum website, http://dallin.org

9. Local Regulations, Policies, and Initiatives

HISTORIC RESOURCES INVENTORY

Identifying a community's historic resources through an historic resource survey forms the basis of historic preservation planning at the local level. During an historic resource survey, a town documents its historic resources on individual inventory forms that include historic and architectural significance narratives, photographs, and locus maps. To date, Arlington has submitted inventory forms for more than 1,100 properties to the Massachusetts Historical Commission's Inventory of Historic and Archaeological Assets of the Commonwealth. Resources identified in Arlington's inventory date from 1695 to 1988. The Town's last survey effort was undertaken in support of expanding the Pleasant Street Historic District. Most of Arlington's inventory forms are available to view and download on the Massachusetts Historical Commission's searchable MACRIS database at mhc-macris.net. Properties listed in the inventory are subject to the Town's demolition delay bylaw (see discussion below.)

NATIONAL REGISTER HISTORIC DISTRICT AND INDIVIDUAL LISTINGS

The National Register of Historic Places is the official federal list of districts, sites, buildings, structures, and objects that have been deemed significant in American history, architecture, archaeology, engineering, and culture. Arlington has three multi-property National Register Districts, three National Register Districts encompassing three or fewer properties, and fifty-seven properties that are individually listed in the National Register (Appendix 6.2).⁸²

LOCAL HISTORIC DISTRICTS

Arlington has designated seven local historic districts with a combined total of 359 properties (see Table X.2). In a local historic district, exterior alterations subject to public view require approval from the Historic District Commissions. These requirements afford a heightened level of protection against incongruous alterations of structures or their environs. Over time, Arlington has expanded a number of these districts due to requests from property owners wishing to have their properties included to better preserve historic streetscapes. All but the Mount Gilboa/Crescent Hill Historic District are located in or around Arlington Center. Properties in Arlington's historic districts vary in age, style, and level of ornamentation. The HDC has adopted design guidelines as an aid to property owners.

Table X.2. Local Histo	Table X.2. Local Historic Districts				
Historic District	Location	No. of	Date of		
Name		Properties	Designation/Most Recent		
			Extension		
Avon Place	7-29 Avon Place and 390-402 Massachusetts	12	8/20/1996		
	Avenue				
Broadway	Bounded by Broadway, Webster, and Mass Avenues	8	9/13/1991		
Central Street	Bounded by Central St to east, Mass Ave to south,	17	6/9/1982		
	and bike path to north				
Jason - Gray	Jason, Gray, Irving and Ravine Streets	50	5/4/1998		
Mount Gilboa -	Westminster Ave, Crescent Hill Ave, Montague St,	104	9/13/1991		
Crescent Hill	Crescent Hill and Westmoreland Ave				
Pleasant Street	Pleasant St from Swan St to Venner Rd, Academy St,	137	4/26/2006		
	Maple St, Oak Knoll, Pelham Terrace, Venner Rd				
	and Wellington St				

 $^{^{\}rm 82}$ Massachusetts Historical Commission, State Register of Historic Places 2012.

Russell Street Roughly bounded by Water, Russell, Mystic, Prescott,		31	7/31/1985
and Winslow Streets			
Total Number of Properties		359	
Source: State Register of Historic Places 2012			

DEMOLITION DELAY BYLAW

Arlington was one of the first communities in Massachusetts to adopt a demolition delay bylaw. Per the Town's Bylaw, Title VI, Article 6 – Historically or Architecturally Significant Buildings, any building in the Historic Structures Inventory (available on the AHC website) or deemed significant by the Historical Commission is subject to review by the commission when a property owner proposes to change or remove more than 25 percent of any one front or side elevation. The bylaw also defines demolition as a building owner's failure to maintain a watertight and secure structure. If the AHC determines during a public hearing process, that the building is preferably preserved, the bylaw imposes a 12-month delay to allow the opportunity to work with a property owner to find alternatives to demolition. The AHC has found the bylaw relatively effective when a property owner is willing to work with the commission. For owners who are not willing to consider an alternative solution, the bylaw only results in a temporary delay before the building is demolished.

PRESERVATION RESTRICTIONS

A number of important Arlington properties are protected by historic preservation restrictions under M.G.L. c. 184, ss. 31-33, including public and private resources (see Table X.3). A preservation restriction is attached to the deed of a property and it is one of the strongest preservation tools available. Most of the restrictions were put in place when the properties were restored with a Massachusetts Preservation Project Fund (MPPF) grant from the Massachusetts Historical Commission.

Name	Address	Date Established	Expiration Date None	
Arlington Old Cemetery (Old Burying Ground)	730 Massachusetts Ave	5/25/2000		
A. P. Cutter House #2	89 Summer St	12/19/2007	None	
Ephraim Cutter House	4 Water St	12/2/1994	None	
Jefferson Cutter House	1 Whittemore Park	1/9/1990	None	
Old Schwamb Mill	17 Mill Ln and 29 Lowell St at Mill Brook	6/23/1999	None	
Pleasant Street Congregational Church	75 Pleasant St	6/1/1999	None	
Robbins Memorial Town Hall	730 Mass Ave	2/10/1987	None	
Winfield Robbins Memorial Garden	730 Mass Ave	5/25/2000	None	
Charles P. Wyman House	50 Wyman St	11/12/1985	None	

EDUCATIONAL AND INTERPRETIVE ACTIVITIES

Interpreting local history in visual formats that are both informative and visually appealing can engage local residents and visitors with a community's heritage. Arlington's Historical Commission and Historical Society have both sponsored educational programs to highlight the town's heritage and

historical sites, including walking tours, brochures, and lectures. The AHDC placed signage at several of the town's historic districts, but these markers are now deteriorated and in some instances, missing. Arlington has only a limited number of interpretive signs in the community. These include informational markers about the events of April 19, 1775, which are located in Whittemore Park in front of the Jefferson Cutter House, at the Jason Russell House, and at the Foot of the Rocks in Arlington Heights. Historic landscape markers are also located along the Minuteman Bikeway; they were developed by the Historic Commission to highlight local history in a neighborhood. The Town recently created distinctive directional signage for Arlington's museums and other cultural resources. In addition, the Town has installed an interpretive sign near the Uncle Sam Memorial Statue and plans to construct a new visitor center nearby at the corner of Massachusetts Avenue and Mystic Street. The Town also placed several historical markers on the former Symmes Hospital property as part of the redevelopment of the site.

REGIONAL INITIATIVES

Arlington's historical significance extends far beyond its local boundaries to one that is both regionally and nationally important. Arlington and its neighbors played a pivotal role in the events leading to the American Revolution, and several regional initiatives have been created to honor this legacy. In 2013, the Freedom's Way Heritage Association launched *Patriots Paths*, an outreach effort to identify Revolutionary sites and compile local stories from ten participating communities, including Arlington. The Freedom's Way website includes a list of venues in Arlington that represent the path of the Patriots in 1775. These sites include historic houses, civic buildings, burial grounds, and sites.

Designation of the *Battle Road Scenic Byway* along a portion of Massachusetts Avenue was a collaborative effort by the communities of Arlington, Lexington, Lincoln, and Concord, the Minute Man National Historical Park, MAPC, and the Massachusetts Executive Office of Transportation. The designation seeks to conserve this historic route and to highlight its archaeological, cultural, historic, natural, recreational, and scenic qualities. The Commonwealth of Massachusetts officially designated the Battle Road Scenic Byway on November 6, 2006, and MAPC completed a Corridor Management Plan for the Byway in Spring 2011.

C. ISSUES AND OPPORTUNITIES

DOCUMENTATION OF HISTORIC AND CULTURAL RESOURCE AREAS

In order to protect a community's historic and cultural resource areas, the Town needs to first identify what resources are present. Over the past three decades, the Arlington Historical Commission (AHC) has documented many of Arlington's historic resources on inventory forms. However, while these inventory forms include extensive historical and architectural narratives, the majority of these forms and their associated photographs are now more than fifteen years old. Furthermore, the Town still has significant locations, resources, and typologies that remain undocumented. Without a record of all of its historic resources, Arlington cannot plan adequately plan to protect this heritage. For example, limited or incomplete documentation can hinder the town's effective use of its demolition delay bylaw, which only allows review of buildings that are included in the inventory.

The Town could then engage professional preservation consultants to complete its survey initiatives, an activity that would be eligible for funding through MHC's Survey and Planning Grant program. A professional archaeologist-led survey effort to identify Native American and historic sites still present in Arlington would also be eligible for Survey and Planning funds. Other options include the use of volunteers and interns. The Historic District Commissions are considering the use of an intern to update Local Historic District (LHD) property photographs, which are used during the regulatory review process.

As Arlington has a Local Historic District bylaw, it is eligible to apply for Certified Local Government (CLG) designation, granted by the National Park Service through the MHC. The CLG designation is awarded based upon the strength of a community's existing and proposed programs for historic preservation. All state historic preservation offices are required to allocate ten percent of their annual federal appropriations to CLG communities. During years of limited federal allocation to MHC, Survey and Planning Grants are restricted to CLG communities only.

ADVOCACY AND EDUCATION

Once historic resources are identified and documented, Arlington can seek to promote and protect its historic resources. Arlington's historic resource inventory can be used to foster public appreciation of Arlington's rich heritage and to develop a public awareness campaign to encourage residents to consider historic designations. While the AHC has an extensive website, it has been many years since the Town has produced informational brochures and literature highlighting Arlington's historic resources. Providing this information in formats that are attractive, accurate, and easily understood is important. Utilizing modern technology, such as Smartphone apps and audio recordings, can help distribute this information to a broader audience. These efforts can build a better understanding of why Arlington's historic and cultural resource areas are important and why they should be preserved. Undertaking these efforts with volunteer memberships and limited budgets, however, could prove challenging for Arlington's preservation organizations.

COMMUNITY-WIDE RESOURCE PROTECTION

Successful preservation of a community's historic assets requires a concerted effort by municipal leaders and boards, private organizations, and local residents to protect the resources that serve as both a tangible reminder of a community's past and a vital component of its contemporary sense of place. While Arlington residents have long valued the town's heritage, and Arlington's well-preserved collection of historic resources stand as testament to this community pride, local historical groups still struggle to increase awareness that historic resources are fragile and need to be protected. While Arlington has a general culture of stewardship for its historical resources, the Town has not been as successful in mandating this protection through regulatory tools or institution of policies. While the Town verbally supports historic preservation, it has been unable to adopt the mechanics or funding to require preservation.

Arlington has significant areas worthy of protection, but the designation process for both National Register and local historic districts requires extensive community outreach and education. The limited resources of each of the Town's historical commissions will make it extremely difficult to undertake future designation efforts.

Protection of historic and cultural resource areas should include more than just the traditional preservation-based regulatory tools, however. Arlington is a densely settled community, with much of its land now developed. This causes significant redevelopment pressure on the town's historic built environment, including both residential and commercial structures. Identifying ways to guide this redevelopment in a manner that respects Arlington's historic character and the architectural integrity of its historic neighborhoods and commercial districts is important. Incorporating historic preservation objectives into the development review process and exploring flexible zoning regulations to encourage building preservation are several objectives for the town to consider.

RESIDENTIAL TEARDOWNS AND BUILDING ALTERATIONS

In highly desirable communities like Arlington, rising residential property values continue to put pressure on historic houses, particularly those of modest size or those sited within a large lot. This pressure is especially acute in areas of smaller, modest housing stock, which are vulnerable to demolition for larger homes and multi-family duplexes built to the maximum height and minimum setbacks allowed under zoning. Arlington's last remaining oversized lots, many of which include historic houses and outbuildings, are also increasingly subject to subdivision and demolition. Furthermore, Arlington is witnessing some loss of historic outbuildings such as carriage houses when owners are unable to find viable uses for these secondary structures. When left vacant and not maintained, these structures slowly deteriorate, leading to unsafe conditions and ultimately demolition.

For Arlington's larger and grander homes, the town is witnessing a trend of building repair and restoration efforts by new owners interested in preservation. However, contemporary living styles are spurring significant interior remodeling and the construction of large additions. The incremental loss of historic building features, such as decorative trim and original multi-pane wood windows, and the construction of large additions that overwhelm the smaller, historic structure result in an incremental "fading" of Arlington's historic character.

This loss of building fabric, whether through outright demolition or incremental loss, is occurring despite Arlington's demolition delay bylaw, which is triggered only if a property is inventoried, and ultimately offers only a temporary reprieve from demolition. Many of Arlington's historic resources remain undocumented and are therefore not subject to the demolition delay bylaw. To address the deficiencies of demolition delay legislation, some communities have adopted provisions that require building officials to notify the local historical commission when any building is proposed for demolition in order to determine historic significance. To permanently protect threatened buildings, some municipalities have designated the properties as single-building historic districts or placed preservation restrictions on the properties.

PRESERVATION OF LOCAL HISTORIC DISTRICT CHARACTER

The streetscapes of Arlington's seven Local Historic Districts provide a living history lesson of Arlington's architectural evolution and development. For more than thirty years, Arlington's LHDs have protected the architectural integrity of the buildings found within these neighborhoods. This protection requires continued vigilance by the Historic District Commissions and ongoing communication with the Town's Building Inspector. Per Town Bylaw, building permits cannot be

issued prior to AHDC approval of changes. However, some physical changes such as window replacements and fence installations do not require a building permit from the building inspector, and sometimes are completed without approval by the respective commission. This emphasizes the importance of retaining a resident member on each district commission to provide an "eye on the ground" to watch over any unauthorized changes in buildings in the district. Furthermore, as the building industry continues to develop new materials and as energy efficiency remains a primary concern for property owners, the AHDC must navigate the delicate balance of historic integrity and environmental sustainability, two ideas that can be mutually supportive. Continuing and expanding the AHDC's efforts to build awareness of designation requirements and promote historically appropriate materials through property owner mailings and conversations with local realtors remains a priority.

Protecting Arlington's LHDs requires more than just regulatory review of building alterations to be successful. Creating a sense of place for these districts to highlight their significance and promote their importance to the community can aid in efforts to create a sense of stewardship. Replacement of deteriorated interpretive markers, installation of unique street signs for designated streets, and ensuring historically appropriate public infrastructure improvements to streetscape elements such as sidewalks, curbing, lighting, and street furniture within the districts are also goals of the AHDC.

INTEGRATING HISTORIC PRESERVATION INTO A LARGER COMMUNITY ETHOS OF CONSERVATION AND PLANNING

Preserving Arlington's historic resources is more than just an effort to preserve history. These resources provide a sense of community for Arlington and its residents. Arlington is blessed with passionate groups who strive to make their community better. Bringing these advocates together, including historic, conservation, environmental, planning, cultural, economic development, and affordable housing groups, to discuss common interests for preserving community character would also allow these groups to explore opportunities to collaborate toward this effort.

For instance, the successful preservation of heritage landscapes, such as the Mill Brook and Spy Pond, requires a concerted effort by a variety of constituents working together to protect history, nature, and culture. Furthermore, historic neighborhoods are more than just historic houses; they are part of a larger streetscape network that includes the public realm of roadways, sidewalks, street trees, and lighting. The installation of historically appropriate lighting, street signs, sidewalks, tree/planting strips, and curbing, and the burial of underground utilities, which would enhance the overall visual quality of historic neighborhoods, would require a concerted effort by Arlington's Planning and Public Works departments together with preservation groups.

PRESERVATION OF TOWN-OWNED HISTORIC RESOURCES

Arlington maintains a unique and exquisite collection of historic civic buildings and landscapes that serve as visual landmarks and provide valuable public spaces for the community to gather. They also provide the setting for art and cultural activities and economic development initiatives such as heritage tourism. While many of the town's historic community/civic spaces are well-maintained and utilized, others are in need of significant repair.

Each of Arlington's historic civic buildings is a unique artifact from the past with distinctive architectural ornamentation reflecting the period and culture responsible for its construction. Collectively, these buildings provide a building fabric that is truly special and their continued use for cultural programming is important for maintaining the vitality of the community. Preserving these historic buildings and their architectural details often requires careful attention and skill. The Town has been a good steward of its historic buildings, parks, and cemeteries, engaging in numerous restoration projects at these properties and designating many of its civic buildings in local historic districts. The Town has also completed planning studies for several of its historic sites to document conditions and identify preservation needs. However, not all of Arlington's civic properties are protected from adverse development and alterations, and the Town has not instituted procedures to require historically-appropriate preservation of these resources.

Furthermore, the Town still has resources in critical need of preservation. Utilizing the expertise and guidance of the Historical Commission and Historic District Commissions, whose membership includes preservation enthusiasts and architectural professionals, can help guide future restoration efforts to ensure that renovations are architecturally and historically sensitive to these century old assets. Identifying funding sources to undertake these projects is also important. Should the Town adopt the Community Preservation Act, some funding will become available as part of this program. While the preservation of municipal buildings is an intent of the CPA, other funding sources should be pursued and regular property maintenance through long-term maintenance plans should also be considered.

D. RECOMMENDATIONS

1) Develop a historic and archaeological resources survey plan to identify and prioritize outstanding inventory needs

This should include a prioritized list that includes civic buildings without inventory forms, threatened resources, and buildings in underrepresented neighborhoods such as East Arlington. The inventory can be used towards the demolition delay bylaw. This activity would be eligible for funding through MHC's Survey and Planning Grant program.

Seek Certified Local Government (CLG) Status for the Arlington Historical Commission

CLG status, granted by the National Park Service through the MHC, would put Arlington in a better competitive position to receive preservation grants since at least ten percent of the MHC's annual federal funding must be distributed to CLG communities through the Survey and Planning Grant program.

3) Expand Community-Wide Preservation Advocacy and Education

■ Increase educational and outreach programs for historic resources. Develop public awareness campaigns to garner community-wide support for preservation initiatives. These efforts could

include interpretive markers, informational brochures, and articles in local media, in addition to the utilization of smartphone apps and audio recordings in order to reach a broader audience. Educational initiatives would be an eligible activity for Survey and Planning Grant funds as well as other funding sources.

Expand educational outreach to property owners of non-designated historic properties. The majority of Arlington's historic buildings are not protected from adverse alterations. While many homeowners appreciate their historic buildings, they may not be aware of methods for preserving the features that make these buildings special. Promote the benefits of historically-appropriate alterations, such as preserving historic wood windows, offer opportunities for combining historic preservation with economic advantages such as energy efficiency, and raise awareness of historic district designation requirements.

4) Implement a Comprehensive Plan for the Protection of Historic Resources

- Review and Strengthen Demolition Delay Bylaw. Arlington's existing demolition delay bylaw is limited both in terms of the types of resources subject to review and the time period allowed for the review. To address the deficiencies of demolition delay legislation, some communities have adopted provisions that require building officials to notify the local historical commission when any building more than 50 or 75 years old is proposed for demolition in order to determine historic significance. The length of the review period, currently twelve months in Arlington, could also be extended. Other communities have increased their delay period to eighteen or twenty-four months.
- Provide the AHC with the tools to designate a single-building historic district.
- Consider designating Architectural Preservation Districts (APD), Consider designation of an Architectural Preservation District (APD), also called neighborhood preservation districts and architectural conservation districts. This could allow the Town to define the distinguishing characteristics of scale and streetscape pattern that should be preserved in a neighborhood.
- Integrate Historic Preservation, Conservation, and Planning. Increasing redevelopment pressure on Arlington's existing historic properties has emphasized the need to guide redevelopment in a manner that respects historic character and the architectural integrity of the town's historic neighborhoods and commercial districts. Successful preservation of these resources will require preservation regulations and zoning to work in tandem to preserve the town's historic character and individual assets. Incorporating an active, formal role for the Arlington Historical Commission in the review of development projects affecting historic resources outside of designated historic districts would be important. In addition, the Town could review its environmental design review process and design guidelines to determine whether additional historic preservation objectives could be incorporated. To address the ongoing issue of residential teardowns, the town could consider adopting flexible zoning regulations to encourage the preservation of historic buildings. These new regulations could include different standards for dimensional and use requirements when an historic building is preserved and reused, such as the approval of a special permit for new building lots with modified dimensional standards if the original historic building is preserved.

- Amend the Zoning Bylaw to incorporate historic preservation into the development review process, e.g., by ensuring that the Historical Commission always receives site plan and EDR plans for review.
- Consider adopting flexible zoning to encourage preservation, e.g., by allowing conversions or a
 variety of uses where they would otherwise be prohibited in order to maintain a historic building's
 vitality,

5) Preserve the character of the Historic Districts.

- For Arlington's existing historic districts, the need for continued vigilance and dialogue between the AHDC and Building Inspector remains a priority to ensure that any changes within the districts are appropriate. Promoting stewardship for these districts is equally important. Creating a sense of place for these districts to highlight their significance and promote their importance to the community would aid in these efforts.
- The Town should implement the following:
 - Replace deteriorated interpretive markers.
 - Install unique street signs for designated streets.
 - Ensure that historically appropriate public infrastructure improvements are applied to streetscape elements.
 - The AHDC and Town departments should work together to determine historicallyappropriate improvements to the town's historic districts, which could include unique street markers, historic district signage, and public infrastructure improvements for historicallyappropriate sidewalks, curbing, lighting, and street furniture.

6) Preserve Town-owned historic resources

Several civic properties remain in critical need of restoration and not all town-owned resources are formally protected from adverse development and alterations. The Town needs to institute procedures to require historically appropriate preservation of municipal resources, including:

- Institute a regular, formal role for the Arlington Historical Commission in review and commenting on projects that affect Town-owned historic resources.
- Utilize the expertise of AHC members to ensure that restoration efforts are architecturally and historically sensitive and comply with the Secretary of the Interior's Standards for Rehabilitation.
- Develop long-term maintenance plans for town-owned historic buildings, structures, parks, cemeteries, and monuments.
- Place preservation restrictions on restored properties to ensure the preservation of publicly-assisted resources.
- Consider placement of Preservation Restrictions on Town-owned historic properties to ensure continued protection of these community landmarks.

- Implement recommendations established in past planning studies completed for Town-owned properties.
- Pursue historic preservation grants to fund restoration projects for Town-owned historic resources.

7) Adopt the Community Preservation Act (CPA).

Arlington should continue efforts to adopt the Community Preservation Act (CPA), which could fund municipal historic preservation projects such as the restoration of the Jefferson Cutter House and Winfield Robbins Memorial Garden and preservation planning initiatives such as historic resource inventories, National Register nominations, and educational brochures. Public education about the benefits of CPA will require a cooperative effort between town boards, commissions, and residents. CPA funds can serve as a matching source for other preservation funding programs. While not extensive, preservation grants, such as MHC's Survey and Planning Grant program and the Massachusetts Preservation Projects Fund, are available to municipalities to plan for and restore public buildings and sites.

8. NATURAL RESOURCES AND OPEN SPACE

A. INTRODUCTION

Open spaces and the benefits of natural resources are a treasured commodity within densely developed communities. They have value in health, recreation, ecology, and beauty. The landscape of Arlington is adorned with natural features that have defined, and continue to influence, the location and intensity of the built environment. Lakes and ponds, brooks, wetlands, meadows and other protected spaces provide crucial public health and ecological benefits, as well as recreational opportunities. In addition, man-made outdoor structures such as paths, gardens, and playing fields, also factor into the components of open space.

Natural and built features all need careful preservation, and integration with continuous development in Arlington. Actions in Arlington also affect neighboring towns, and it is important to note that local policies and practices relating to water and other natural resources have regional consequences. There must be a focus on irreplaceable land and water resources in decisions about where, what, and how much to build in Arlington.

B. EXISTING CONDITIONS

1. Topography, Geology, and Soils

Arlington straddles several geologic and watershed boundaries that contribute to its varied landscape. The west side of town lies within the Coastal Lowlands (also known as the Eastern Plateau), a **physiographic area** that includes large portions of Middlesex County, with elevations ranging from 100 feet to nearly 400 feet above mean sea level (MSL). Arlington's highest elevation, Turkey Hill (380 feet), along with Mount Gilboa and Symmes Hill, are all located in this part of town. Mill Brook flows from west to east through the valley below these hills. Another band of hilly terrain runs along the south and west sides of Arlington.

A **watershed divide** lies near the Arlington's southwest corner, where a small portion of town is part of the Charles River watershed. The majority of Arlington's land is located in the Mystic River watershed, and most of the water that falls in town flows toward low-lying areas in the eastern and southern parts of Arlington, emptying through Alewife Brook and the Mystic River leading to Boston Harbor River Basin and into Massachusetts Bay. Arlington's section of the Boston Basin consists of the low-lying, relatively flat floodplain bordering the Alewife Brook between Lower Mystic Lake and Spy Pond.⁸³ Here, elevations range between 10 and 40 feet above MSL.

Neither topography nor soil conditions have deterred development in Arlington over the past century. Homes and businesses were built in floodplains and on steep slopes both ignoring and hindering

⁸³ U.S. Natural Resource Conservation Service (NRCS), Soil Survey of Middlesex County (2009), 5-6.

natural storm water management. According to the Environmental Protection Agency (EPA), a significant portion of the town (41.4 percent) is covered with impervious surfaces – mainly buildings and pavement – which impede the land's ability to absorb and disperse rainwater.⁸⁴ Also affecting Arlington's water absorption are large areas of ledge and rocky soils.

Most of Arlington's soils have been disrupted due to the intense development that occurred here over past centuries. The U.S. Natural Resource Conservation Service (NRCS) classifies these kinds of soils as **urban land**. In Arlington and virtually all cities and towns in the Greater Boston area, urban land occurs in a **soils complex**, or an intricate mix of two or more soil series, i.e., urban (disturbed) land mixed with soils that still retain their original characteristics. Table X.1 describes specific information about Arlington's soils.

Table X.1: Soil Types Found in A	rlington	
Soil Type	Description	Location in Arlington
Charlton-Hollis-Urban Land	Charlton Soils: well-drained, upland soils.	Western areas on slopes of
Complex	Stony, with 60 inches or more of friable fine	3 to 5 percent
	sandy loam (a silt-sand-clay mixture).	
	Hollis soils: shallow (less than 20 inches),	
	excessively drained on bedrock uplands.	
	Friable fine sandy loam.	
Newport-Urban Land Complex	Newport Soils: found on 3 to 15 percent	West and northwest of Park
	slopes, tends to be silty loam.	Circle, east of Turkey Hill,
		and west of Winchester
		Country Club
Merrimac-Urban Land	Merrimac Soils: excessively drained soils on	East Arlington
Complex	glacial outwash plains, sandy loams over a	•
	loose sand and gravel layer at 18 to 30	
	inches. Soils contain approximately 75	
	percent urban land/disturbed soils.	
Sandy Udorthents and	Udorthent Soils: excavated and/or deposited	East Arlington by lakes,
Udorthents Wet Substratum	due to construction operations. streams and wet areas	
Source: Arlington Open Space a	nd Recreation Plan 2007-2012.	

2. Water Resources

Approximately 226 acres, or 6.4 percent of Arlington's total area is covered by surface water, including two lakes, two ponds, one reservoir, one river, and several brooks (see Map X.1). Most of Arlington is located in the Mystic River watershed, which covers about 76 sq. mi. and includes portions of twenty-two communities in the Greater Boston area, from Lexington to Wilmington, Belmont to Melrose. The Charles River watershed reaches slightly into the Poet's Corner and Arlmont Village neighborhoods. Arlington shares most of its water resources with neighboring communities, and all of its large water bodies are located on or near town boundaries. Together, Arlington, its neighbors, and nonprofit advocacy groups have collaborated to protect and improve the quality of their shared water resources.

LAKES, PONDS, AND RESERVOIRS

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⁸⁴ U.S. Environmental Protection Agency (EPA), Region 1, "Impervious Cover & Watershed Delineation by Subbasin or GWCA Arlington, MA" (March 30, 2010).

Mystic Lakes

The Upper and Lower Mystic Lakes form Arlington's northeast boundary with Winchester and Medford. Each water body qualifies as a Great Pond under state law.85 The Mystic Lakes are regionally significant water bodies that support a variety of fish, year-round migrating birds, and outdoor recreation such as swimming, boating, and fishing. State-owned park land provides public access to the water along the eastern shores of the Mystic Lakes, but access in Arlington is limited because most of its shoreline is privately owned. The Town owns only three acres of steeply-sloped conservation land with shoreline on the Upper Mystic Lake, known as Window on the Mystic. This area is managed by the Arlington Conservation Commission.

Spy Pond

Spy Pond, also a great pond, is located near Arlington's southeast boundary with Belmont and forms part of the headwaters of Alewife Brook. Spy Pond supports a limited fish population and is an important resting and feeding area for migrating and year-round birds. According to the Natural Heritage and Endangered Species Program (NHESP), Spy Pond has ecological significance as an aquatic core habitat and a natural landscape that supports at least one species of special conservation concern (Engelmann's Umbrella-sedge).86 In the middle of the pond is Elizabeth Island, a two-acre property owned by the Arlington Land Trust and permanently protected with a conservation restriction held by the Arlington Conservation Commission and Mass Audubon.

Spy Pond is a popular recreational spot for fishing, boating, bird watching, and ice skating. Swimming is not officially permitted and public access to the pond is limited to several short paths and Spy Pond Park. The Arlington Boys and Girls Club, located on the northwestern shore, uses Spy Pond for summer boating programs. The Arlington-Belmont Crew also uses the pond for its practices and meets, and the Arlington Recreation Department rents canoes and kayaks for public use during the summer.

It is a beloved community resource with well-organized advocates including the Spy Pond Committee of Vision 2020 and Friends of Spy Pond Park, Inc. Over the past decade, the Town has made improvements to the pond and shoreline access points, including major park improvements in 2005 and a joint project with the Appalachian Mountain Club Trail Team and MassDOT to reconstruct a multi-use path along Route 2. In addition, the Town has worked with consultants to remove invasive and nuisance plant species and replace them with native vegetation along the shoreline.⁸⁷ Water quality and environmental degradation of Spy Pond is an ongoing concern, and the Town has received state assistance with environmental remediation efforts.

Hill's Pond (Menotomy Pond)

Located in Menotomy Rocks Park, Hill's Pond is a 2.6-acre man-made water body that provides habitat for common species of fish, frogs, birds, and insects. Accessible by footpaths from Jason Street and

⁸⁵ "Great Pond" is a pond or lake that contained more than 10 acres in its natural state, or a water body that once measured 10 or more acres in its natural state, but which is now smaller. Ponds or lakes classified as Great Ponds trigger Chapter 91 licensing requirements for piers, wharves, floats, retaining walls, revetments, pilings, bridges, and dams, and waterfront buildings constructed on filled land or over water. See Mass. Department of Environmental Protection (DEP), Wetlands and Waterways, Massachusetts Great Pond List.

⁸⁶ NHESP, BioMap 2 Arlington Report (2012).

⁸⁷ Aquatic Control Technology, Inc., to Arlington Department of Public Works, "2012 Aquatic Management Program Arlington, MA, Spy Pond, Arlington Reservoir and Hills Pond" (undated).

other adjacent roads, Hill's Pond offers scenic vistas and recreational opportunities for fishing and bird watching, and ice skating during the winter months. In the mid-1990s, Arlington completed an award-winning improvements project that involved draining, dredging, and redesigning the pond. In 2007, the Town installed aerators to improve water quality and re-graded and edged the pond to minimize erosion and run-off. Hill's Pond is monitored, tested, and treated for invasive plant species each year.

Arlington Reservoir

The 65-acre Arlington Reservoir site, including 29 acres of water, is located at Arlington's western border with Lexington. It served as Arlington's public water supply from the early 1870s until the Town joined the Metropolitan Water District (now the MWRA) in 1899. Only about half of the Reservoir's surface water area lies within Arlington (the remainder is in Lexington), but the entire perimeter is owned by the Town and managed by the Arlington Department of Public Works (DPW) and Parks and Recreation Commission (PRC). The Arlington Reservoir Committee, a subcommittee of Vision 2020, provides advocacy for protecting and improving Arlington Reservoir's water quality and surrounding landscape.

The Arlington Reservoir supports diverse wildlife habitats and includes Arlington's largest collection of aquatic species. It also serves as a recreational resource, with a mile-long perimeter walking trail, and swimming at a sandy beach (Reservoir Beach) on the northeastern shore. The Town has made some improvements at the beach recently, including the installation of an access ramp for people with disabilities. An earthen dam along the southern edge maintains the Arlington Reservoir's water level. Water can be released into the Mill Brook by way of a sluice gate in the dam. In 1999, the state notified Arlington that the dam was failing and needed to be repaired in order to protect downstream properties. Town officials, engineers, and members of Vision 2020 collaborated to design a plan that would protect public safety, preserve and enhance recreation facilities, and protect the wooded landscape around the reservoir. This award-winning rehabilitation project was completed in 2006. A Wildlife Habitat Garden surrounding the new bridge and spillway was established in 2011 and is maintained by the Vision 2020 Reservoir Committee.

RIVERS AND BROOKS

Mystic River

The Mystic River is a regional resource that provides recreational and scenic benefits, as well as habitat for many species of birds, fish, and other fauna. Its primary source is in Reading, where the Aberjona River begins. The Aberjona flows into the Mystic Lakes which then releases into the Mystic River, which passes along Arlington's eastern border, through Medford, Somerville, Everett, Charlestown (Boston), and Chelsea until it merges with the Chelsea River and empties into Boston Harbor. As one of five sub-watersheds of the much larger Boston Harbor watershed, the Mystic River watershed is very urban and densely populated and, as such, has significant environmental challenges.

Historically, the Mystic River was the site of significant industrial and maritime activity during the eighteenth and nineteenth centuries. This industrial legacy contributed to the river's serious pollution issues. Several organizations have worked to improve water quality, and educate the public about the Mystic River's ecological and public health significance to the region. Formed in 1972, the nonprofit Mystic River Watershed Association (MyRWA) is dedicated to restoring and protecting the river,

organizing stewardship programs, promoting public access, monitoring water quality, and sponsoring clean-up activities.

The EPA's Mystic River Watershed Initiative (2009) is a partnership of federal, state, and local agencies, nonprofit organizations and UMass-Boston, to improve environmental conditions in the Mystic River and its tributaries, as well as support marine science research, protect open space, and provide public access to the water. 88 In addition, the Massachusetts Department of Conservation and Recreation (DCR) which owns the land abutting the river, created the Mystic River Master Plan (2009) to address various recreational improvements and maintenance needs along the river and the Mystic River Reservation. As of June, 2014, state funding has been made available to finalize the designs and permits necessary to implement the plan. 89

Mill Brook

The Mill Brook flows from west to east through the center of Arlington, roughly parallel to both Massachusetts Avenue and the Minuteman Bikeway from the Arlington Reservoir to Arlington Center, where it turns northward and flows through Mt. Pleasant Cemetery and Meadowbrook Park into the Lower Mystic Lake. It functions as part of a larger drainage system that collects water from as far upstream as the Great Meadow in Lexington. As the water source for several mills and mill ponds during the eighteenth and nineteenth century, the Mill Brook is a significant piece of Arlington's cultural landscape, a link to its industrial past. As of 2014, much of the Mill Brook is channeled, with segments running through underground culverts and only limited views exist to the exposed sections of the waterway. There are access points in several town-owned parks and cultural sites including Meadowbrook Park, Mt. Pleasant Cemetery, Cooke's Hollow Conservation Area, Wellington Park, the Old Schwamb Mill, Hurd Field, and the Arlington Reservoir. In 2010, the Open Space Committee prepared a preliminary study for a linear park abutting the Mill Brook. According to that report, the Mill Brook needs "restoration and remediation to improve biodiversity, water quality, drainage and flood control." Portions of the Mill Brook are subject to "chronic flooding" largely because so much of it is channelized.

Alewife Brook

A Mystic River tributary, the completely channelized Alewife Brook forms Arlington's eastern boundary with Cambridge and Somerville. It is located within the state-owned Alewife Brook Reservation, a 120-acre conservation area that is one of the region's largest urban parks. Managed by DCR, the Alewife Brook Reservation includes land in Arlington, Cambridge, and Somerville. Alewife Brook continues to be the site of significant flooding concern for neighborhoods in East Arlington, Cambridge, and Belmont. Its urban setting and surrounding land use patterns make the Alewife Brook highly vulnerable to flooding, combined sewer overflows (CSOs), and high nutrient saturation. 91 There is concern in Arlington that recent large-scale development projects completed or proposed in

⁸⁸ U.S. Environmental Protection Agency, Mystic River Watershed Initiative (undated publication).

⁸⁹ http://mysticriver.org/mystic-river-master-plan/

⁹⁰ Mill Brook Linear Park Study Group, "Mill Brook Linear Park Report" (2010).

⁹¹ Blankenship, et al., Quality and Quantity: Stormwater Management in Alewife Brook (Tufts University WSSS and Mystic River Watershed Association, 2011), 9.

Cambridge near Route 2, Alewife Brook and the Alewife MBTA station, could exacerbate the area's flooding problems.

Reed's Brook

This small brook, including a retention pond to control flooding, flows through McClennen Park in the northwest corner of Arlington on the Lexington border. It meanders through both towns before feeding into Munroe Brook and entering the Arlington Reservoir. Before 1959, Reed's Brook was surrounded by agricultural land, and from 1959 to 1969 Arlington operated a landfill in this area. McClennen Park was redeveloped by the town during the early 2000s and dedicated in 2006.

WETLANDS

Wetlands perform basic functions such as flood storage, flood damage control, pollution filtration, and groundwater recharge. They are also essential habitats for many birds, animals, insects, and native plants, whether common, threatened, or endangered. In Arlington, wetlands can be found in scattered sites along Alewife Brook, Spy Pond, Hill's Pond, the Arlington Reservoir, Meadowbrook Park, on undeveloped properties near Thorndike Field, and in several sites near Reed's Brook in the northwest corner of town. Most of the mapped wetlands in Arlington are shallow marshes and shrub swamps bordering a water body, river, brook, or stream.

Wetlands are sensitive, scenic, and ecologically valuable resources. The regulations that protect them comprise some of the strongest controls over land development in Massachusetts. Wetlands protection laws and regulations do not directly control land use but they do affect where construction can occur, how construction activities can be carried out, and what types of mitigation may be required for construction near wetland resource areas. Wetland impacts are regulated by the federal Clean Water Act, the state Wetlands Protection Act (WPA) and Rivers Protection Act, and the Town of Arlington's Wetlands Protection Bylaw and Regulations. The Clean Water Act requires a permit for dredging or filling of any "waters of the United States," including most wetlands. The Massachusetts WPA requires Conservation Commission review and approval for work in and within 100 feet of wetlands and within 200 feet of perennial rivers. Arlington's local wetlands bylaw imposes some additional restrictions.

FLOODPLAINS

Several areas in Arlington experience major flooding problems every few years, including the areas around Reed's Brook, Mill Brook, and Alewife Brook. The Federal Emergency Management Agency (FEMA) released new floodplain maps for Arlington in 2010 and Town Meeting adopted them in 2010 (see map in Appendix 7.1). Virtually all of Arlington's easterly boundary – from the Mystic Lakes to the Mystic River, the Alewife Brook, and Spy Pond – falls within federally designated floodplains. The Arlington Reservoir and portions of the Mill Brook are also in floodplains.

Since construction in a 1-percent floodplain is strictly regulated by both state and local bylaws, and has to be permitted by the Conservation Commission, changes to floodplain boundaries may have an impact on future development not only within Arlington but on the greater flood-prone region along the Alewife Brook. Moreover, changes in flood risk assessments on a given property could have a significant impact on the homeowner's cost of flood insurance. The Arlington-Belmont-Cambridge (ABC) Tri-Community Group has recently been reauthorized by the state to address flooding in the Alewife Brook watershed region and to monitor combined sewer overflows (CSOs) along the brook.

Vegetation 3.

Vegetation reveals a lot about a community's soil conditions and climate, as well as its density of development. It also plays a critical role in hydrologic cycles, stormwater management, heat management, and quality of life.

NATIVE AND INVASIVE PLANTS

Arlington's waterways are home to numerous species of native trees, bushes, and plants that thrive in wet soils. These include Green Ash, Silver, Red, and Ashleaf Maples, Cottonwood, and Willow trees. Cattail, Silky and Red Osier Dogwoods, and Buttonbush are also commonly found. Reed pads and aquatic weeds can be found in and around the town's water bodies, including Mystic Lake and Spy Pond.92

The Town encourages landscaping and gardening with native plants. For example, the DPW uses native species in its landscaping work, and the Conservation Commission publishes a list of native plants as a guide for property owners and developers. As part of the Arlington Reservoir dam reconstruction project, the Town's Vision 2020 Reservoir Committee installed a Wildlife Habitat Garden planted with native shrubs, trees, and perennials. 93 The Town also used native plant species in rain gardens established in 2012 and 2013 at Spy Pond, Hardy School, and Hurd Field. These gardens are designed to collect, absorb, and clean stormwater runoff.

Numerous species of non-native and invasive trees, shrubs, and plants exist throughout Arlington. An invasive species is defined by the National Invasive Species Council as "... an alien (or non-native) species whose introduction does, or is likely to cause economic or environmental harm or harm to human health."94 Non-native species in Arlington include Norway and Sycamore Maples, Tree-of-Heaven, and Mountain Ash trees, as well as Common and European Buckhorns, Forsythia, Winged Euonymus, some Honeysuckles, Multiflora Rose, Oriental Bittersweet, Barberry, and Japanese Knotweed shrubs. Purple Loosestrife, Phragmites reed, and water chestnut are also found in and near many of the town's wetlands and water bodies. All of these are fairly typical of the invasives found in Massachusetts cities and towns.

Using the Town's Water Bodies Fund, Arlington tries to control and remove invasive plants and aquatic weeds at its conservation lands, including the water chestnut growing at the Arlington Reservoir.95 MyWRA has also worked to remove water chestnut from the Mystic River. Water chestnut, which grows in dense floating mats, limits the amount of light that can reach below the water's surface. It reduces oxygen levels in the water, increases the potential for fish kills, and limits recreational activities such as boating, fishing, and swimming.96

⁹² Ibid.

⁹³ Arlington Reservoir Committee, "Wildlife Habitat Garden," $http://www.arlington 2020.org/reservoir/Habitat_Garden.htm.$

⁹⁴ National Invasive Species Council, http://www.invasivespecies.gov.

⁹⁵ See Aquatic Control Technology, Inc., to Arlington DPW, 2012 Report.

⁹⁶U.S. Department of the Interior, National Park Service, "Aquatic Plants: Water Chestnut," http://www.nps.gov/plants/alien/pubs/midatlantic/trna.htm.

STREET TREES AND WOODLANDS

One of the most important elements of Arlington's well-developed streetscape is the abundance of trees and shrubs. Arlington has significant tree coverage helping to improve air quality, filter pollutants, in addition to aiding flood control and erosion prevention. Street trees provide a buffer from car traffic, and some relief from the summer sun and winter winds. Trees and plants play a critical role in the hydrologic cycle, stormwater management, and heat management. Woodlands, though limited in size, are still found in several locations throughout town, at Menotomy Rocks Park, Turkey Hill, Mount Gilboa, Arlington Reservoir, portions of the Symmes property, Hill's Hill, and the Crusher Lot at the Ottoson School. According to the Town's *Open Space and Recreation Plan*, these woodlands include White Ash, several species of Oaks and Hickories, White Pine, Sassafras, Staghorn Sumac, Grey and Paper Birches, and more limited examples of Sugar Maple, Black Cherry, and Linden trees. Native shrubs and plants found in these woodland areas include Blueberry, Currant, Dangleberry, Deerberry, Maple Leaf Viburnum, Whorled Loosestrife, and False Solomon's Seal.⁹⁷

The Town's commitment to protecting its trees is key to its sustained designation as a Tree City USA community. 98 Cities and towns become eligible for designation if they meet four key requirements: having a tree warden, following state law for regulating the forest, celebrating Arbor Day, and spending at least \$2 per capita on forestry preservation and maintenance. Arlington has instituted policies for responding to requests from residents to remove or add street trees. The Town does its best to address problems with dead or dying trees and hazardous tree limbs on public property, but it will not remove healthy trees. Residents who want to remove healthy street trees have to accept financial responsibility for public notification, a public hearing, taking down the tree, and planting a replacement. Although the Town plants eighty to ninety trees every year, local officials report that Arlington is losing more trees than it gains, in part due to sporadic torrential rains and winter storms. Arlington Town Meeting established the Tree Committee to work on programs to identify areas needing more trees and to promote better tree care by residents.

TOWN-SUPPORTED GARDENS

The Arlington Garden Club, in coordination with DPW, sponsors the adoption of more than sixty traffic islands throughout town and posts signs indicating the name of the sponsor. Volunteers plant flowers and shrubs, and water and maintain them throughout the year. The Garden Club presents awards, noted on small signs, for the "best" islands each year. The Town has also collaborated with various groups on building three rain gardens - at the Hardy School, Spy Pond Park, and near Hurd Field next to the Arlington Reservoir. Two volunteer-managed community gardens are located on Town-owned land at Robbins Farm Park and Magnolia Field.

4. Open Space

In urban communities like Arlington, residents value open space of all kinds, from pocket parks to playing fields to protected wetlands, for there is very little unused land in town. Arlington has 554.6 acres of publicly owned open space, including 162 acres of conservation land, parkland, and land in

⁹⁷ Open Space and Recreation Plan Update 2007-2012 (2007), 54-59.

⁹⁸ The Tree City USA® program is sponsored by The National Arbor Day Foundation, in cooperation with the U.S. Department of Agriculture Forest Service and the National Association of State Foresters. It provides technical assistance and national recognition for urban and community forestry programs.

schools and recreational uses (XXX acres), other Town-owned land (XXX acres), and state-owned open land (32 acres)(See Map X.X).

Protected open space is land set aside and restricted for conservation, protection of surface waters, groundwater, and natural diversity, or passive recreation. According to state records, Arlington has 162 acres of protected open space including town conservation land and other land with long-term or perpetual protection through other means, e.g., a conservation restriction (CR).⁹⁹ By contrast, public parks and recreational facilities often serve other needs, e.g. team sports, playgrounds, or neighborhood gathering places.¹⁰⁰ These are described in the Recreation section of the Public Facilities and Services master plan element.

TOWN CONSERVATION LAND

The Arlington Conservation Commission (ACC) oversees and manages twenty-four land parcels with a combined total of 33.11 acres (see Table X.2). Except for a few relatively large conservation areas and parks, most are small, scattered-site holdings of less than one acre that Arlington acquired as tax title takings before the 1970s. ¹⁰¹ Many are unmaintained woodlands with limited access or visibility.

Table X.2. Open Space	Parcels Under the Jurisdiction of the Arlington Conservation Commission	
Site Name	Location	Acres
Mt. Gilboa	North of Mass. Ave. (parking at Park Place, off Crescent Hill Avenue)	10.70
Turkey Hill	Above Forest and Washington Sts., northwest Arlington	10.70
Meadowbrook Park	Mouth of Mill Brook; surrounded by Mt. Pleasant Cemetery	3.30
Window-on-the Mystic	East of Mystic Street near Beverly Road on Upper Mystic Lake	3.00
Forest Street	Opposite intersection of Forest/Dunster Lane, Winchester town line	1.00
Cooke's Hollow	Off Mystic Street, south of the Community Safety Building	0.75
Ridge Street	North end of Ridge Street	0.60
Woodside Lane	Across from 26, 30 and 34 Woodside Lane	0.60
Brattle Street	Surrounding 54 Brattle Street	0.54
Stone Road	Across from 24 Stone Road	0.19
Madison Avenue	Adjacent to Mt. Gilboa lands	0.46
Philemon Street	South side of 32 Philemon Street	0.13
Concord Turnpike	Between Scituate and Newport Streets, Concord Turnpike and Arlmont Streets	0.13
Mohawk Road	2 parcels; intersection of Washington and Mohawk Streets	0.13
Hemlock Street	Uphill from 5 Hemlock Street, near former Symmes Hospital	0.12
Short Street	Between 8 Short and 11 West Streets	0.11
Inverness Road	Next to 36 Inverness Street	0.10
Rublee Street	Intersection of Rublee and Udine; entrance to Sutherland Woods in Lexington	0.10
Kilsythe Road	Landlocked behind 44 and 48 Kilsythe Road	0.09
Water Street	Area with two benches north of Bike path next to Buzzell Field	0.08
Brand Street	2 parcels, left of 72 Brand Street and right of 36 Brand Street	0.20
Spring Street	Across from 120 Spring Street	0.04
53 Park Avenue, rear	Access through left side of 53 Park Avenue	0.02
Central Street	Adamian property, end of Central Street	0.02

⁹⁹ NHESP, BioMap 2: Arlington Report (2012).

¹⁰⁰ See Chapter 9 for discussion of Arlington's parks, playgrounds, and other developed recreation facilities.

¹⁰¹ Cori Beckwith, Conservation Administrator, Interview with Community Opportunities Group, Inc., August 1, 2013.

Table X.2. Open Space	Parcels Under the Jurisdiction of the Arlington Conservation Commission		
Site Name	Location	Acres	
TOTAL		33.11	
Source: Arlington Conservation Commission, http://www.town.arlington.ma.us/Public Documents/ArlingtonMA ConComm/misc/conservationlands			

The ACC has adopted general use regulations for its properties and tries to address issues with encroachment and landscape dumping. It relies on its partner, the Conservation Land Stewards, to identify management needs. A significant portion of the ACC's small land acquisition fund was contributed to help fund the Arlington Land Trust's purchase of Elizabeth Island in Spy Pond, establishing the conservation restriction co-held by ACC and Mass Audubon. Additional key ACC holdings include:

- Meadowbrook Park. A 3.3 acre parcel adjacent to Mt. Pleasant Cemetery. Primarily wetlands, the site encompasses land where the Mill Brook enters the Lower Mystic Lake. The ACC has carried out several stewardship projects here: stabilizing the banks of the brook and improving public access, removing invasive reeds, and planting native wetland and aquatic plants along the brook.
- Mount Gilboa Conservation Area. A ten-acre conservation site in northwest Arlington, this reserve is a steep, tree-covered hill with one house, large rock outcroppings, and a network of woodland trails. The Town rents the house to private individuals.
- Windows-on-the-Mystic. Located off Mystic Street (Route 3) near the Winchester line, this threeacre conservation parcel is Arlington's only public waterfront on the Mystic Lakes. It offers scenic views and is the primary public access point to the Upper Mystic Lake. The property's rugged landscape has made it difficult for the ACC to manage and maintain the site, resulting in limited use by visitors. Over the years, representatives of Arlington Boy Scouts and other volunteers have installed a trail and steps at the property, but there is no public boat launch or beach at the site.102
- Cooke's Hollow. This small parcel is a long, narrow, partially landscaped area located along both sides of Mill Brook near Mystic Street. The park provides scenic vistas and includes park benches and interpretive signage about the area's historic significance as the site of the first mill the area in the 1630s. The Arlington Garden Club installed gardens and public access at the site, and the Town renovated the park in 2008.

OTHER TOWN-OWNED OPEN SPACE

Arlington also owns open space that is not under the ACC's direct purview. Most notable is the 183-acre **Great Meadows**, which is Arlington's largest open space holding, though it is actually <u>located entirely in the Town of Lexington</u>. While generally thought of as conservation land, Great Meadows is not protected in perpetuity. The Arlington Board of Selectmen has jurisdiction over the land, most of which is a flat, marshy plain surrounded by wooded uplands with hiking trails. The Minuteman Bikeway forms its southern border and offers the most direct access to the trails. Local officials and citizen groups in Arlington and Lexington have worked to preserve the natural resources at Great Meadows. In 1999, the ACC commissioned a Natural Resource Inventory and Stewardship Plan for

¹⁰² Cori Beckwith, Arlington Conservation Administrator.

this property. ¹⁰³ Thereafter, Arlington and Lexington residents formed the Friends of Arlington's Great Meadows (FoAGM) to serve as stewards of the property. FoAGM has surveyed plants and animals in the Meadow, organized regular bird watching and geology walks, and built a series of boardwalks to improve the visitor's experience and protect natural resources.

OTHER RECREATION FACILITIES

The Minuteman Bikeway provides several recreational opportunities and functions as a natural habitat corridor by virtue of its adjacency to large open spaces, brooks, and other water bodies. ¹⁰⁴ The path connects wildlife habitats of the Great Meadows, Mill Brook, Spy Pond and Alewife Brook. The first section of the Minuteman Bikeway opened in 1993 on a disused railroad right-of-way, after almost 20 years of planning and construction. In 1998, the path was completed to its current length. Only part of the 11-mile long path is in Arlington; it begins in Bedford Center, passing through Lexington and Arlington, ending in Cambridge at the Alewife MBTA Station. In addition to its popularity as a commuter bike route and recreation trail, the bikeway links historic sites, attractions, conservation areas, and regional parks. Arlington's portion of the bikeway is about three miles long and runs largely parallel to Massachusetts Avenue, although they, in fact, cross paths. DPW has planned and will construct a new crossing arrangement for the bikeway at this junction with Massachusetts Avenue in Arlington Center, with completion expected in 2015.

STATE-OWNED OPEN SPACE

The Commonwealth of Massachusetts owns several land parcels in Arlington, the largest being the Alewife Reservation, which is managed by DCR. In 2003, the DCR prepared master plans for both the Alewife Reservation (2003) and the Mystic River (2009) (See Appendix 7.x).

- The 120-acre Alewife Reservation in Cambridge, Belmont, and Arlington is one of Boston's largest urban wilds. It provides habitat for a wide range of indigenous and migratory birds and many other animals, including deer and coyote. A large portion of the reservation consists of wetlands and water bodies, including Little Pond, Little River, and Alewife Brook. The site also has wooded uplands and meadows. In 2013, DCR completed a federally-funded \$3.8 million multi-use path along the Alewife Brook connecting the Minuteman path with the Mystic Valley along the Alewife Brook Parkway. The Alewife Greenway Bike Path restoration project (also referred to as the Minuteman Bikeway Connector) included the installation of a dirt/stone pathway with elevated boardwalks in ecologically sensitive areas, removal of invasive plants, and new landscaping. The path provides much-improved access for bicyclists, pedestrians, bird watchers, and others.
- The Massachusetts Water Resources Authority (MWRA) owns the pumping station on Brattle Street and the water tower on top of the Turkey Hill. The Arlington Park and Recreation Commission has jurisdiction over the twelve acres of wooded land around the Turkey Hill water

¹⁰⁴ In 2000, Arlington renamed its portion of the bikeway as the "Donald R. Marquis/Minuteman Bikeway" to honor a former town manager.

¹⁰³ Frances Clark, Carex Associates. Natural Resources Inventory and Stewardship Plan of Arlington's Great Meadows in Lexington. July 2001.

http://www.foagm.org/AGM_Inventory/RptMaster.pdf

tower, and the Conservation Commission owns a couple of small adjacent parcels. During the mid-2000s, Arlington worked with the state, the MWRA, and neighborhood residents to address security issues at the site. A stewardship group organized through the ACC's Land Stewards Program monitors and maintains the reservation.

■ In addition, the Massachusetts Department of Public Works (MDPW) owns a maintenance building near Route 2 and the Massachusetts Highway Department (MHD) owns land along Route 2 that includes a path on the southern edge of Spy Pond.

PRIVATELY OWNED OPEN SPACE

Elizabeth Island. The Arlington Land Trust (ALT) acquired Elizabeth Island in 2010. With privately raised funding and support from the Conservation Commission, the Commonwealth's Conservation Partnership program, and the Massachusetts Audubon Society (MAS), the ALT purchased this undeveloped, heavily vegetated two-acre island in the middle of Spy Pond and granted a conservation restriction (co-held by the ACC and MAS). In turn, MAS prepared a management plan for the island that identified minor maintenance needs. Elizabeth Island is open to the public, but its limited access allows the island to serve as nesting habitat for various species of birds and small mammals. ALT and the Friends of Spy Pond Park host tours of the island several times a year, and the Recreation Department has a boat rental program on the pond during the summer months so residents can visit the island on their own.

Symmes Woods. The Town of Arlington acquired the eighteen-acre Symmes Hospital property in 2002 in order to control future development on this large, central site. The property included several former hospital buildings, a nurse's residence, several parking lots, and nine acres of steep woodland. After an extensive public process, Arlington sold the property to a developer in 2007. The disposition agreement required the permanent protection of approximately nine acres of the site, including two public parks and the woodland now known as Symmes Woods.

The site offers parking for public visitors to use the parks and woodland trails for passive enjoyment, all protected with a Conservation Restriction (CR) held jointly by the ACC and ALT. A Conservation Restriction is recorded on a property's deed and provides the most restrictive form of land protection. It allows property owners to convey partial (less-than-fee) interest in their land to a qualified conservation organization such as the ALT, or public agency such as the ACC. By granting a CR, the landowner agrees to preserve the property in its "natural" state and forego future development. If given for less than full compensation, the landowner may receive the benefit of a charitable tax deduction.

UNPROTECTED PRIVATE OPEN SPACE

Fourteen acres on three parcels in the southeast corner of Arlington are the largest privately owned undeveloped properties in Arlington. The empty land, located next to Route 2, Thorndike Field and the Alewife Brook Reservation, has been a concern for the Town for many years. In 2000 and 2001, Town Meeting endorsed the permanent protection of the land, but local officials could not reach agreement with the owners who themselves have proposed several unsuccessful development concepts for the site. This properties have been altered and filled-in over many years; a substantial amount of the site remains wetlands and the majority of the area is susceptible to flooding. The entire

site is within a FEMA-designated flood zone and "must be kept free of encroachment so that the 1-percent annual chance flood can be carried without substantial increases in flood heights." 105

Other significant unprotected private sites in Arlington are the Winchester Country Club (22.6 acres) and Belmont Country Club (11.2 acres), which are presently in use as golf courses but, in fact, zoned as residential. The Roman Catholic Archdiocese owns land at Poet's Corner (6.5 acres), the Arlington Catholic High School field on Summer Street (2.3 acres), and St. Paul's Cemetery (14.9 acres). The Kelwyn Manor Park (1.8 acres) includes a publically accessible playground and open space at Spy Pond, but is owned by a private neighborhood association.

5. Sustainability and Climate Change Adaptation

In Arlington, both staff and volunteer committees work on the development and implementation of sustainability programs, and educate the community about climate change adaptation. In 2006, Town Meeting adopted the *Arlington Sustainability Action Plan*, prepared jointly by Tufts University students and members of *Sustainable Arlington*, an affiliate of the Vision 2020 Environment Task Group. The plan is primarily a **climate action plan** that focuses on energy efficiency, transitioning to sources of energy that lower or eliminate the production of greenhouse gases, reducing single-occupancy vehicle trips, and educating the public. Many of the recommendations have been adopted and continue to be carried out by the Town, including the hiring of an energy coordinator and a recycling manager, and the purchasing of fuel-efficient vehicles. Many of the steps taken to implement the *Sustainability Action Plan* set the stage for Arlington's designation by the Massachusetts Green Communities Program in 2010.

Sustainability focuses on the convergence of the built and natural environments in places where people can have healthier, more productive lives while reducing their impact on the world's natural resources. Seen this way, sustainability encompasses land use, transportation, economic diversity and competitiveness, and a broad range of environmental management practices. Arlington has understood this for a long time as shown in the nine Vision 2020 goals the Town adopted in the 1990s (see Appendix 1.1).

Current examples of good sustainability policies in Arlington range from the Safe Routes to School Program (walkability and public health) to the Vision 2020 surveys conducted each year (community assessments and inclusiveness). The Minuteman Bikeway, the "complete streets" plan for Massachusetts Avenue in East Arlington, and Arlington's tradition of neighborhood schools are also good examples of sustainability in facilities planning and design. Furthermore, Arlington's efforts to care for trees, its successful recycling program, and its unusually strong commitment to stormwater education exemplify the sense of environmental stewardship shared by residents, town officials, and staff. With help from MyRWA, rain gardens have been built at Hurd Field (Drake Road in Arlington Heights) and at the Hardy School (Lake Street). Rain gardens are vegetated areas that collect, absorb, and clean stormwater runoff. In addition, porous parking surfaces have been installed at Hurd Field and Thorndike Field in East Arlington.

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¹⁰⁵ Federal Emergency Management Agency (FEMA). Flood Insurance Rate Map (25017C0419E). 2010

C. ISSUES AND OPPORTUNITIES

1. Open Space

In Vision 2020 surveys, the World Café event in October 2012, and at many community meetings, Arlington residents have been remarkably consistent about the town's natural resource protection needs. Residents believe that Arlington should protect, improve, and maintain the open spaces it currently owns and, where possible, make more diverse use of existing open space properties. In a 2013 survey of support for the nine Vision 2020 goals for Arlington, the goal addressing the protection and enhancement of Arlington's natural resources and sustainability was considered second most important, beaten only by the need for good public schools. Arlington residents have expressed a desire to see the Town do more to protect open space and natural resources.

Concerns of residents include the limited amount of public access to water bodies in Arlington. There is a well-used nature trail around the Arlington Reservoir, but very limited access around Spy Pond, where most of the shoreline is privately owned. Public access is also limited on the Arlington portion of DCR land on the shores of the Mystic Lakes and Mystic River. Furthermore, the protected open space that does exist in Arlington is not always well-connected or well-maintained, so the ecological and passive recreational values of the land are significantly diminished. The Minuteman Bikeway does provide a recreational link among many sites in the Mill Brook Valley.

Residents also recognize that protecting open space and natural resources requires regional action, especially for urbanized communities like Arlington and most of its neighbors. Some of the regional or inter-local efforts that do exist are described in the Town's *Open Space and Recreation Plan*, which also calls for more funding and staff to manage and maintain the town's open space. Due to budget constraints, however, Arlington has not been able to increase staff in most of its municipal departments; in many cases, especially the DPW, the number of personnel has actually decreased. Funding constraints also limit Arlington's ability to acquire open space. In 2014, Arlington Town Meeting voted to put the Community Preservation Act (CPA) on the Town-wide ballot, a move that could bring the town a dedicated source of revenue for open space, historic preservation, and affordable housing. If approved in November 2014, the CPA could offer the town a new funding source for acquiring and protecting currently undeveloped land, especially parcels located in floodplains.

2. Water Quality

NONPOINT SOURCE WATER POLLUTION

Another source of environmental concern is nonpoint source water pollution—pollution that originates from diffused or widespread sources and enters surface water and groundwater through storm water runoff. Nonpoint source pollutants include:

- Excess fertilizers, herbicides, and insecticides from lawns and farmland;
- Oil, grease, and toxic chemicals from urban runoff and energy production;
- Sediment from improperly managed construction sites and eroding stream banks; and
- Bacteria and nutrients from pet wastes.

These pollutants have harmful effects on drinking water supplies, recreation, and fisheries and wildlife. Identifying and controlling the source of pollutants, such as a leaking underground oil tank or the leaching of fertilizer into a water body, is much more difficult than point source pollution. The most important ways to control nonpoint source pollution are through proper land management, effective maintenance of petroleum, erosion control, and storm water management bylaws and zoning to control land use. All of Arlington's water bodies are threatened by nonpoint pollution due to untreated storm water runoff from roadways, residential properties, and businesses. Storm water runoff is accelerating the process of eutrophication in many town water bodies, and in the case of Spy Pond is also creating a sandbar.

WATER QUALITY STANDARDS

The federal Clean Water Act (CWA) requires all fifty states to assess the quality of surface waters every two years and identify water bodies with significant water quality impairments. All of the water bodies in Arlington are designated suitable for "habitat for fish, other aquatic life, and wildlife..., and secondary contact recreation ... Class B waters shall be suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses. These waters shall have consistently good aesthetic value." 106 Though designated for these purposes, the water bodies in Arlington do not actually meet Class B surface water quality standards. DEP has classified almost all of the ponds, lakes, rivers, and named brooks in Arlington as "Category 5" impaired waters under the CWA. As Category 5 waters, they require a Total Maximum Daily Load (TMDL) in order to restore them to meet surface water quality standards for Class B waters. As defined by the EPA, TMDL is an estimate of how much of a pollutant, or group of pollutants, a water body (lake, pond, river, stream, or estuary) can absorb without becoming polluted. TMDLs are developed for a pollutant (or a group of pollutants) in water bodies that are listed in each state's list of impaired waters, known as the 303(d) list.

1. Spy Pond has been the subject of environmental concerns for several decades. In 2001, the Town received two state grants to assist in adopting Best Management Practices to control nonpoint water source pollution, to address the more than forty storm drains allowing excess phosphorus from lawn fertilizers and road salt and sand to enter the pond. From 2010 to 2013, Spy Pond was one of five water bodies in Massachusetts tested weekly by the Department of Public Health (MDPH) to identify harmful algae blooms (HABs) as part of a grant from the Centers for Disease Control (CDC).107 The Massachusetts Department of Transportation (MassDOT) recently installed Best Management Practices (BMP) devices to address runoff from Route 2 that was causing the formation of a sandbar in the pond.108 Nevertheless, while Spy Pond is state-designated as a Class B water body, it does not meet the Commonwealth's Class B water quality standards. Spy Pond remains impaired from causes such as chlordane, DDT, excessive algae growth, and phosphorous – all conditions that make it a Category 5 water body that requires a TMDL.109

¹⁰⁶ Code of Massachusetts Regulations (CMR) 314: 405(b).

¹⁰⁷ Arlington Board of Health, http://www.arlingtonma.gov.

¹⁰⁸ Cori Beckwith, Conservation Administrator, Interview with Community Opportunities Group, Inc., August 1, 2013.

¹⁰⁹ DEP, 2012 Integrated List of Waters, 144.

- The Mystic Lakes suffer from nonpoint runoff from the Mystic Valley Parkway and lawn and yard maintenance. Aquatic weeds such as milfoil continue to be found in the lakes, causing concerns to both human safety and eutrophication of the water body. In the past, the Winchester Boat Club has successfully applied aquatic pesticides to control weeds in its area of the Upper Mystic Lake. According to the 2012 Integrated List of Waters, both the Upper and Lower Mystic Lakes qualify as Category 5 waters due to dissolved oxygen, and the Lower Mystic Lake is also impaired due to PCB (found in fish tissue), salinity, chronic toxicity, DDT, and hydrogen sulfide.¹¹⁰
- The five-mile segment of the **Mystic River** that flows from Arlington to the Amelia Earhart Dam in Somerville/Everett is impaired by arsenic, chlordane, chlorophyll-a, DDT, dissolved oxygen saturation, *Escherichia coli* (*E. coli*), PCB in fish tissue, phosphorus (Total), and chronic toxicity. In annual self-assessments under MassDOT's NPDES Stormwater Management Plan, the agency estimates that the watershed of this segment consists of approximately 3,860 acres, 59.8 percent of which is impervious.¹¹¹ MyRWA and other state and private entities perform regular monitoring and maintain records of water quality.
- **Mill Brook** suffers from nonpoint source pollution and storm drain pollution all across the town. The principal cause of Mill Brook's impairment is *E. coli* from animal wastes.
- Alewife Brook, one of the most polluted water bodies in Arlington, is adversely affected by combined sewer overflows (CSOs) from Cambridge, Somerville, and the MWRA system. Cambridge has separated some of its combined drains, but overflows remain problematic. There are several reported causes of the Alewife Brook's Category 5 status, including copper, *E. coli*, foam and oil slicks, lead, dissolved oxygen, PCB in fish tissue, phosphorus, and chronic toxicity.
- Arlington Reservoir faces nonpoint pollution problems from pesticides and fertilizers from a nearby farm and surrounding homes. Water chestnuts are also a problem that the Town tries to control by manual and mechanical harvesting during the summer. Two storm drains on the Lexington side of the Reservoir also are sources of pollution.

3. Urban Wildlife

Many Arlington residents say that since roughly 2000, they have seen increasing numbers of rabbits, wild turkeys, coyote, and raccoons around town. Over time, largely due to the introduction of exotic plants in natural communities and displacement of native species, animals that rarely ventured into settled areas now frequent yards in residential neighborhoods. The problems range from predatory wildlife to human illness, injury, and fatalities, and property damage. In Arlington, controlling the population of geese by egg addling has become an essential part of managing water quality at Spy Pond and at Reed's Brook in McClennen Park.

¹¹⁰ Ibid.

¹¹¹ MassDOT, "Impaired Waters Assessment of Mystic River" (Segment MA71-02), 2012.

4. Environmental Hazards

HAZARDOUS WASTE SITES

The Massachusetts DEP Bureau of Waste Site Cleanup regulates the identification, assessment, and remediation of contaminated sites, known as **Disposal Sites** under the Massachusetts Contingency Plan regulations. According to the DEP's Reportable Release Lookup table, there have been 193 reported disposal incidents in Arlington since 1987.¹¹² The vast majority of incidents reported to DEP were relatively minor or low risk, involving a response that did not require oversight by DEP or a Licensed Site Professional. Seven incidents are "Tier classified," however, meaning a type or an extent of contamination that poses a higher risk to the public.

DEP has identified six sites in Arlington that are subject to Activity and Use Limitations: remediated (and sometimes not remediated) sites that can be used for new purposes, subject to restrictions recorded with the deed. For example, the playing field at Arlington Catholic High School can be used for an athletic field and accessory purposes, but not for construction of a residence or business.

NATURAL HAZARDS RESPONSE

In recent years, Arlington has experienced both natural and human-caused disasters, e.g., hurricanes, blizzards, floods, and hazardous material spills. To help prepare for these events, Arlington established a Local Emergency Planning Committee, composed of town employees and residents. The committee has developed a new Emergency Management Plan for the town which focuses not only on preparedness and response but also mitigation and recovery. It is unclear whether Arlington has a Hazard Mitigation Plan, however, as required by the Federal Disaster Mitigation Act of 2000. The Metropolitan Area Planning Council (MAPC) has worked with several communities in Greater Boston (including Arlington's neighbor, the City of Medford) to develop Hazard Mitigation Plans. "Hazard mitigation" involves long-term strategies, such as planning, changes in policy, educational programs, public works projects and preservation of floodplains and wetlands, to reduce or alleviate losses of life, injuries, and property resulting from natural hazards.

5. Tree Cover

Despite Arlington's ongoing support for maintaining and protecting trees, the town is losing tree cover due to storms, utility company maintenance, and the failure of replacement street trees to thrive. In July 2012, for example, a "microburst" rain storm descended on East Arlington, destroying approximately one hundred trees. Although the Town appropriates funds for tree replacement each year, the DPW is not staffed to provide the amount of field labor involved with proper urban forestry management. According to the DPW director, the town is losing more trees than it is replacing each year. Storm-related problems are not the only cause of tree loss. Sometimes new trees planted to replace older trees (uprooted or removed) do not survive. In the business districts, there needs to be a close collaboration between the Town, store owners, other commercial tenants, residents, and community organizations to take better care of both existing and new trees. Aside from the environmental and public health benefits of trees in urban areas, the trees have a significant impact on the quality of the pedestrian's experience in Arlington's commercial centers.

¹¹² MA DEP, "Waste Sites and Releases: Arlington," http://public.dep.state.ma.us/SearchableSites2/Search.aspx.

¹¹³ Arlington Emergency Management Services, www.arlingtonma.gov/Public_Documents/ArlingtonMA_EMS/index.

E. RECOMMENDATIONS

1) Create a comprehensive plan for the Mill Brook environmental corridor, including possible "daylighting" options for culvert sections of the waterway, flood plain management, and pathways. In addition require public access or apply visual and physical design guidelines for new development along the corridor.

Comprehensive plans allow decision making at various scales to adhere to overlying principles. The Mill Brook corridor crosses residential, industrial and open space land use districts. These different zoning districts regulate land use, but do not necessarily ensure that new or repurposed developments react properly to their environmentally sensitive location. A Mill Brook plan should create landscaping and building design standards, and establish requirements for public access to the Mill Brook, and the preservation of views.

 Address street tree problems, including the replacement of trees lost due to storms and the failed survival of many newly planted trees. Coordinate tree care between the Town and property owners.

Trees are a major asset for Arlington streets. They provide beauty and shade, help mitigate ground level pollution, and are part of the greater ecological system. Many trees were felled in recent storms, and more still are at risk. A plan with a specific timeline needs to be implemented in order to not just replace lost trees, but attain a desired planting density. A professional examination of failed plantings needs to be undertaken, and measures to prevent future failure need to be implemented. At current rates, Arlington is not replacing as many trees as it loses each year. A temporary budgetary allocation is required in order to reverse this trend and start a net increase in street trees.

Concurrently, the jurisdiction and management of street trees needs to be better outlined. The responsibility and care for street trees needs to be well understood by residents. The Town and the Tree Committee need to perform public outreach to educate property owners.

3) Pursue strategies to protect the large parcels of vacant land in the southeast corner of Arlington near Alewife Station and Thorndike Field. Preserve open space and manage the floodplain that lies across much of this site.

Three prime properties in southeast Arlington totaling fourteen acres remain undeveloped. The parcels, part of Arlington's only Planned Unit Development (PUD), remain vacant after several proposals were rejected by the Town. The properties are located adjacent to a large park (Thorndike Field), near the Minuteman Bikeway, Spy Pond and Alewife Brook. The majority of the site is located in the 1-percent flood zone and construction is heavily restricted. Arlington needs to continue to pursue resolution of this land, either for partial development or complete open space protection.

Among the tools available, a Transfer of Development Rights (TDR) bylaw should be considered as a combined land protection and economic development strategy. In order to be effective, a TDR

bylaw will require partnering with a viable land trust so that development rights can be acquired efficiently when the owner of a "sending" area (such as the vacant land near Thorndike Field) is ready to sell.

- 4) Create a bylaw to control / remove invasive plants and species.
- Arlington should explore the legality of imposing restrictions on invasive plants and removing them from private property when they create a hazard or threat to other properties or public land.



9. PUBLIC SERVICES & FACILITIES

A. INTRODUCTION

The public services and facilities element of a master plan tries to anticipate the buildings, other facilities, and human resources that a local government will need in order to meet future demands for services. A public facility is any Town property designated for public use or providing a base of operations for municipal services. In addition to buildings, this includes, but is not limited to, roadways, utilities such as water or sewer service, parks, playgrounds, and cemeteries.

Common public facilities include town halls, fire and police stations, and public schools. In addition to these "basic" public buildings, many communities have unique facilities such as town hospitals, an airport, or a function hall and grounds. For example, Arlington owns several historic buildings and former schools that currently house municipal programs and private offices. Together, a town's buildings, land, infrastructure, and equipment make it possible for municipal employees and volunteers to provide services to residents and businesses. Public facilities are often located in strategic locations. Siting emergency departments in centrally located and accessible areas should benefit the greatest number of residents.. Arlington's Central Fire Station is a good example of a strategically located facility at the confluence of multiple street grids which enable quick access in an emergency.

The Town of Arlington is a large, complex corporation with an annual operating budget of \$132 million (FY 2014). Credit rating agencies have recognized Arlington as an exceptionally well-run town and it ranks among an elite group of Massachusetts communities with a triple-A bond rating. It is a "full-service" community, offering many programs and services for people of all ages. Overall, residents seem satisfied with the quality of the services they receive. Participants in public meetings for this master plan usually gave high marks to town government in general and the schools in particular, and many say Arlington's historic civic buildings are among the great strengths of the community. Design can embody the values of the community. Arlington's Town Hall, Robbins Library, and the gardens that connect them are more than just a reflection of the community when they were built; they represent Arlington's cultural identity.

The educational, cultural, recreational, and health services that Arlington provides enhance the quality of life in town, but they are increasingly expensive to maintain. Complaints about property taxes are hardly unique to Arlington, but the frequency with which people mention "structural deficit" in Arlington suggests a heightened awareness about the imbalance between a major dependence on the local tax base and high expectations for services. Arlington is a largely built-out community. It benefits from the efficiencies that come with a fairly compact development pattern, yet it still faces a constant challenge of funding local government services. There are several reasons for these challenges, ranging from Arlington's lack of land for new growth to its small nonresidential tax base. The aging of the population, the impact of economic cycles on municipal revenue growth, the unpredictability of state aid, constitutional constraints on the taxation powers of Massachusetts cities and towns, and the cost to operate high quality services mean that Arlington's financial challenges will probably intensify in the future.

B. EXISTING CONDITIONS

1. Town Services

GENERAL GOVERNMENT

"General government" includes the Town's executive, financial, legal, administrative, policy, and planning functions. Arlington has a Town Manager/Board of Selectmen form of government with a legislative body composed of 252 elected Town Meeting members. The Town Manager, a professional appointed by the selectmen, directs the day-to-day operations of local government and acts as the chief executive officer. In addition, the Town Manager prepares a proposed annual operating budget and capital budget and submits them to the Board of Selectmen and Finance Committee, which reviews all spending requests and makes recommendations to Town Meeting. The Board of Selectmen issues warrants for Town Meeting, makes recommendations on some warrant articles, sets town policies, and adopts financial guidelines for the annual operating budget and capital improvements. In addition, the selectmen approve the Town Manager's appointments to boards and commissions, hold public hearings, oversee traffic issues, and issue various licenses, including liquor and food vendor licenses.

In 1986, Arlington established a Capital Planning Committee (CPC) to help the town plan for and prioritize capital expenses. The CPC includes the Town Manager, Superintendent of Schools, Treasurer, and Comptroller (or their designees), along with a representative of the Finance Committee and four registered voters. As a matter of policy, Arlington dedicates approximately 5 percent of town revenue for capital items annually, including debt service from projects approved in prior years. The CPC uses the following criteria to evaluate capital requests from town departments:

- Imminent threat to the health and safety of citizens/property
- Maintenance of operations/necessary expenditure
- Requirement of state or federal law/regulation
- Improvement of infrastructure
- Improvement of productivity
- Alleviation of over-taxed/over-burdened population

The CPC develops a five-year capital plan and submits recommendations to the Town Manager for inclusion with the operating budget. Over the five-year period FY 2014-2018, Arlington's capital plan calls for a total investment of \$47 million from a combination of debt, cash outlays from general revenue, and other sources such as user fees and grants.¹¹⁴

The Board of Selectmen and Town Manager develop annual goals. Both have embraced goals of transparency, public information, and customer service. Toward these ends, Arlington has established an online Request/Answer Center to make, track, and search requests for town services. The service has been heavily used by both staff and residents. In addition, there is a town email distribution list for official notices, information on town activities, and public alerts. According to the 2012 *Annual Report*,

¹¹⁴ Adam Chapdelaine, Town Manager, FY 2014 Annual Budget and Financial Plan, 177-198 passim; and interview, September 25, 2013.

subscription has increased to more than 4,500 individuals. Arlington residents take participation seriously, and they expect timely access to information. In Vision 2020 surveys, many respondents have said they rely on the town website and public alerts to stay on top of town and school issues.¹¹⁵

Several departments comprise the general government operations at Arlington Town Hall (Table X.1). In addition to the Town Manager and Board of Selectmen, Arlington has the core functions of Town Clerk, Comptroller, Treasurer/Collector, and Assessors; in addition to planning and zoning staff in the Department of Planning and Community Development (DPCD). General government functions in Arlington have a combined total of 57.7 full-time equivalent (FTE) employees, or approximately 1.3 general government employees per 1,000 population. Host departments provide support to elected and appointed boards, notably DPCD, which works with many volunteer entities: the Redevelopment Board, Board of Appeals, Historic District Commission, Conservation Commission, Vision 2020, the Open Space Committee, the Master Plan Advisory Committee, and others.

Position	Board of	Town Manager	Human	Finance
	Selectmen		Resources	
Managerial	1	2.0	1.0	2.0
Clerical	2.5	1.0	2.5	11.2
Professional/Technical	0	2.7	0.0	3.0
Custodial	0	0.0	0.0	0.0
Total	3.5	5.7	3.5	16.2
Position	Assessor	Information	Legal	Town
		Technology		Clerk/Registrars
Managerial	1.0	1.0	2.0	1.0
Clerical	3.0	1.0	1.5	3.0
Professional/Technical	0.0	5.5	1.0	1.0
Custodial	0.0	0.0	0.0	0.0
Total	4.0	7.5	4.5	5.0
Position	Parking	Planning &	Redevelopment	Zoning Board of
		Community	Board	Appeals
		Development		
Managerial	0.0	1.0	0.0	0.0
Clerical	1.0	1.0	0.0	0.5
Professional/Technical	0.0	3.8	0.0	0.0
Custodial	0.0	0.0	0.5	0.0
Total	1.0	5.8	0.5	0.5
Grand Total				57.7
Source: Town of Arlington,	FY2014 Budget			

Facilities. All of Arlington's general government functions are housed in the Town Hall and annex at the corner of Massachusetts Avenue and Academy Street in Arlington Center. The 100-year-old building includes administrative offices, meeting rooms, and a beautifully restored auditorium used

¹¹⁵ Vision 2020 Annual Report to Town Meeting (May 6, 2013), 4.

¹¹⁶ FY 2014 Annual Budget and Financial Plan, 61-101 passim.

for town meetings and other community events. Town Hall is partially accessible to people with disabilities.

1. Public Safety

POLICE DEPARTMENT

The Arlington Police Department has the largest staff of all Town departments in Arlington (excluding schools). Organized into three divisions, the police department has a total of 83.7 FTE employees or 1.95 FTE per 1,000 population (Table X.2). Staffing for the traffic and patrol functions in the Community Services Division and the Criminal Investigation Bureau (CIB) have been reduced from historic levels but remained constant for the last few years. In the past, administration and support for the fire and police departments were accounted for separately in the Community Safety Administration & Support Budget. As of FY 2014, these functions have been integrated within the police and fire department budgets, but the support staff levels will remain the same. The public safety dispatchers now fall within the police department's purview as well.

Table X.2. Police Department Staff (FY 2014)			
Position	Total Staff		
Chief	1		
Captain	3		
Lieutenant	6		
Sergeants	9		
Police Officers	47		
Parking Control Officers	2.4		
Animal Control Officer	1		
Dispatchers	10		
Clerical	4.3		
Custodial	1		
Total	83.7		
Source: Town of Arlington, FY2014 Bud	lget		

- The Community Services Division includes all uniformed patrol operations: the Traffic Unit, Patrol Division, Community Services Officer, K-9 Unit, Bicycle Unit, and Animal Control. Officers answer calls, enforce traffic and parking laws, and perform special assignments such as school safety. The Crime Analysis Unit tracks trends and patterns and uses the information to direct police resources.
- The Investigative Services and Professional Standards Division administers the Criminal Investigation Bureau (CIB) and Professional Standards/Accreditation Office. The CIB has responsibility for crime follow-up, maintaining the sex offender registry, police prosecutions in court, the school resource officer, drug task force, family services, and code enforcement. This division also develops and implements department policies and procedures, maintains state accreditation and certification, and conducts internal and special investigations.
- The Support Services Division provides logistical support to all police units and carries out administrative functions. The division's responsibilities include recruiting, hiring, and training new officers; managing information systems; issuing firearm and hackney licenses; scheduling; maintaining the fleet and building; recordkeeping; and dispatch.

The Police Department receives grants for special programs, e.g., the Hoarding Response Team (a joint effort with the Fire and Health Departments) and the Jail Diversion Program. Both efforts pair a mental health clinician with public safety officials to help residents with mental health problems.

Arlington belongs to the North Eastern Massachusetts Law Enforcement Council (NEMLEC), which provides mutual aid and has an assistance agreement to share resources and personnel among member communities.

Calls for Service. Between 2009 and 2012, the Arlington Police Department's calls for service increased steadily (Table X.3). According to the 2012 *Annual Report*, the Police Department responded to more than 30,000 emergency calls that year. However, arrests decreased, as did reported "Part A" crimes: murder, manslaughter, rape, robbery, aggravated assault, burglary, larceny, arson, and motor vehicle theft. In Arlington, burglaries are the most common Part A crime. In 2012, a total of 582 crimes were reported to the Police Department, representing a 15 percent decrease from 2011. Traffic problems generate many of the public safety complaints. The Traffic Unit is considered understaffed, with only one full-time officer assigned to it. With increasing investigative and administrative functions, the Traffic Unit's productivity has decreased.¹¹⁷

Table X.3. Police Department Calls for Service: 2009-2012					
	2009	2010	2011	2012	
Emergency Calls	25,268	26,732	27,483	30,168	
Police Reports	3,510	3,810	3,638	3,488	
Arrests	309	293	226	209	
Protective Custody	35	22	15	35	
Summons	205	181	192	183	
M.V. Citations	3,369	3,567	4,049	3,914	
Source: Arlington Police Department, 2012 Annual Report					

Facilities. The Police Department operates from Arlington's Community Safety Building on the corner of Mystic and Summer Streets. Built in 1983, it is currently in the second phase of a three-phase renovation. Phase 1 involved rebuilding the central courtyard. In Phase 2, the building envelope—damaged by chronic water infiltration—is being reconstructed. Phase 3 will focus on interior renovations and programmatic improvements to support police operations. This last phase, budgeted at \$2.5 million, is currently planned for FY 2015 and FY 2016.¹¹⁸

FIRE DEPARTMENT

The Arlington Fire Department's responsibilities include fire prevention and suppression, hazard mitigation, planning for local emergencies, and emergency medical service. Fire prevention includes code enforcement and inspections as well as public education efforts, e.g., Student Awareness of Fire Education (SAFE) and the Juvenile Fire Setter Intervention Program (JFIP). All Arlington firefighters are trained in emergency medical techniques, and all newly hired firefighters are required to become emergency medical technicians (EMTs). There is one Town-owned ambulance with one backup. Arlington continues to explore expanding its emergency medical service to include advanced life support (ALS) and a second full-time ambulance. Currently, the privately-owned Armstrong

¹¹⁷ Arlington Police Department, 2012 Annual Report.

¹¹⁸ Arlington Capital Planning Committee, Report to Town Meeting, April 2013.

Ambulance Service provides the paramedics for all ALS calls. Armstrong, which provides services to many communities in Greater Boston, is physically based and headquartered in Arlington.

Table X.4. Fire Department Staff (FY 2014)		
Position	Total Staffing	
Chief	1.0	
Deputy Chief	5.0	
Captain	6.0	
Lieutenant	15.0	
Firefighter	50.0	
Professional/Technical	2.0	
Clerical	1.0	
Total	80.0	
Source: Town of Arlington, FY 2014 Budget		

The Fire Department employs eighty people, most with combined firefighter/EMT responsibilities (Table X.4), providing a ratio of 1.87 FTE per 1,000 population. In 2012, the Fire Department had 73 EMTs on staff and three first responders. According to the 2012 *Annual Report* and the Town's FY 2014 Budget and Financial Plan, the Fire Department's capacity has been strained by increasing demands, particularly for training, prevention, and inspections. In 2014, the Fire Department expects to create a five-to-ten- year plan that will likely involve reorganization of functions and personnel.

Table X.5. Fire Department Calls for Service: 2009-2012				
	2009	2010	2011	2012
Fire	79	132	111	133
Emergency Medicals & Medical Assists	2,546	2,490	2,581	2,450
Other*	2,093	2,426	2,125	2,169
Total Calls	4,718	5,048	4, 81 <i>7</i>	4,752
Source: Arlington Fire Department, 2012 Annual Report.				

Calls for Service. The Arlington Fire Department responded to 4,752 calls for service in 2012, including 133 fires. Over half the calls were for medical emergencies or medical assists. The overall call volume has remained relatively constant for the past several years (Table X.5).

Table X.6. Fire Apparatus		
Station	Equipment	
Central Fire Station	Engine 1	
	Engine 5	
	Ladder 1	
	4 cars	
	1 pick up	
	1 trailer	
	1 maintenance truck	
	1 boat	
Highland Fire Station	Engine 2	
	Engine 4	
	Rescue 1	
	Rescue 2	

Tower Fire Station (Park Circle)	Engine 3
Source: Northeast Fire News, 2013.	

Facilities and Equipment. Arlington has three fire stations that house a variety of apparatus (Table X.6). The Fire Department Headquarters are located in the historic Central Fire Station, which is currently in the final phase of a complete renovation. Funding for the design of interior renovations is budgeted in Arlington's capital plan for FY2014, and construction is budgeted in FY2015 (estimated construction cost: \$5.6 million). The Highland Fire Station, renovated in 2011, is certified as LEED Silver¹¹⁹, and the third facility, the Tower Fire Station on Park Avenue in Arlington Heights, was built in 2007 to replace an earlier station at that site.

INSPECTIONAL SERVICES

The Inspectional Services Department (ISD) administers the State Building Code and enforces the Zoning Bylaw. In addition to the ISD director, who serves as the Town's building commissioner, the department employs three other inspectors and a zoning assistant (Table X.7). In FY2012, the ISD issued a combined total of 5,760 building, plumbing, gas, and wiring permits. Like most building departments, Arlington's ISD generates significantly more revenue from permit fees than the town's cost to operate the department. The 5,760 permits issued in 2012 brought over \$1.7 million to the Arlington's general fund compared with a total operating budget of \$378,190.120

2. Public Works

The Arlington Department of Public Works (DPW) consists of eight divisions with a combined total of 77.3 FTE employees (Table X.8), or just 1.8 FTE per 1,000 population – *including* those employed under the water/sewer enterprise. The average ratio of employees in the U.S. Northeast region is 2.15 FTE. A decade ago (2004), the DPW was Arlington's largest town department, but it has felt drastic effects of budget shortfalls, more than most other municipal operations. As in most towns, the DPW in Arlington is the "go-to" department for numerous requests, and it is a very busy operation. Public works departments everywhere tend to be capital-intensive operations, and the same applies to Arlington's DPW. Virtually all of the projects the DPW is responsible for involve both workers and heavy equipment: dump trucks, tractors, backhoes, street sweepers, sanders, materials and equipment for water and sewer main repairs and improvements, plows, and so forth. Its \$24.2 million share of the 2012-2013 capital plan is one-half of the total that Arlington expects to spend on capital projects between FY 2014-2018.¹²¹

Table X.8. Public Works Staff (FY 2014)	
Position	Total Staffing
Administration	7.2
Engineering	4.0
Cemeteries	3.6
Natural Resources	18.0

¹¹⁹ LEED Silver indicates a score of 50-59 out of 100 points on a scale that measures energy efficiency and environmental design.

¹²⁰ FY2014 Annual Budget and Financial Plan, 137.

¹²¹ FY 2014 Budget and Financial Plan, 191-194.

Highways	22.0				
Water/Sewer	16.5				
Fleet Maintenance	6.0				
Total	77.3				
Source: Town of Arlington, FY 2014 Budget.					

Note: two DPW divisions - Properties and Streetlights – do not have employees.

DPW Services. In addition to core DPW administrative functions, the DPW maintains just over 100 miles¹²² of roadways and 175 miles of sidewalks; provides engineering services (e.g., design, construction oversight, development review); maintains all town parks and playgrounds and all trees on public property; manages building custodians; and maintains forty town buildings, ¹²³ cemeteries, the town's 250 miles of water and sewer infrastructure, and over 150 town vehicles. The DPW also oversees the vendor contract for curbside solid waste disposal, composting, and recycling services. Although Arlington is not a "pay-as-you-throw" (PAYT) community, the DPW is particularly proud of its accomplishments with solid waste and recycling. In 2012, for example, the Town reduced solid waste disposal from 14,527 to 14,214 tons and increased recyclables from 4,395 to 4,652 tons. ¹²⁴

Water/Sewer Enterprise. Arlington purchases water and sewer service from the Massachusetts Water Resources Authority (MWRA) but maintains its own water and sewer infrastructure: 135 miles of water mains, 127 miles of sewer mains, nine sewer lift stations, and many hydrants, valves, and service connections/shut offs. The Town charges residents and businesses for water and sewer use and pays the MWRA approximately \$12 million per year. Arlington operates these services as a **municipal enterprise**, which means water and sewer revenues are accounted for separately from the General Fund. Since these services receive a set level of subsidy (approximately \$5.6 million) from taxes, water and sewer rates must be set at levels that will cover the Town's obligations to the MWRA and provide for reasonable operating and capital reserves.

Relative to its peer group, Arlington is fairly affordable in terms of water and sewer costs. An annual survey of water and sewer rates in Massachusetts indicates that Arlington's average sewer bill falls well below the peer group midpoint, and its average water bill is at the midpoint. Together, water and sewer charges in Arlington comprise 1.3 percent of the town's median household income: one of the least burdensome costs shown in Table X.9.

Table X.9. Water and Sewer Charges, Arlington and Peer Group Communities (2012)					
	Sewer	Water			

¹²² Of the total 120.80 miles of roadway in Arlington, DPW maintains 101.98 miles of public roadway. 4.52 miles are maintained by MassDOT, 1.52 miles by DCR, and 12.77 miles are private ways. Mass Dept. of Revenue: Municipal databank. Road Miles 2012.

¹²³ Supervision of building maintenance resides in the DPW, but the budget for building maintenance and all of the maintenance personnel are in the School Department.

¹²⁴ Public Works Department, 2012 Annual Report, and Michael Rademacher, DPW Director, interview, September 17, 2013.

 $^{^{125}}$ As part of the annual budget presentation, the Town Manager's office tracks key financial data for twelve communities that are generally similar to Arlington. Together, Arlington and the other twelve towns in Table 9.9 make up the peer group referred to elsewhere in this plan.

•	Population	Average	Population	Average	Median	Utility
Sewer	Served	Water	Served	Annual	Household	Cost %
Cost		Cost		Utility Cost	Income	Household
				(Combined)		Income
\$583	42,300	\$594	42,300	\$1,177	\$87,525	1.34%
\$1,347	24,000	\$724	25,000	\$2,071	\$105,717	1.96%
\$895	56,377	\$600	56,377	\$1,495	\$95,47 1	1.57%
\$912	<i>57,</i> 407	\$637	57,407	\$1,549	\$72,773	2.13%
\$1,069	28,100	\$690	28,100	\$1,759	\$86,264	2.04%
\$1,232	Not	\$656	26,220	\$1,888	\$107 , 577	1.76%
\$951	32,000	\$316	32,000	\$1,267	\$95,059	1.33%
\$998	30,000	\$483	30,000	\$1,481	\$125,170	1.18%
\$846	18,000	\$526	29,456	\$1,372	\$97,044	1.41%
\$1,176	23,486	\$1,075	23,846	\$2,251	\$102,614	2.19%
\$1,080	23,000	\$552	23,000	\$1,632	\$72,938	2.24%
\$913	32,986	\$479	30,237	\$1,392	\$83,053	1.68%
\$313	22,275	\$276	22,275	\$589	\$128,199	0.46%
\$951		\$594		\$1,495		1.68%
	\$583 \$1,347 \$895 \$912 \$1,069 \$1,232 \$951 \$998 \$846 \$1,176 \$1,080 \$913 \$313 \$951	\$583 42,300 \$1,347 24,000 \$895 56,377 \$912 57,407 \$1,069 28,100 \$1,232 Not reported \$951 32,000 \$998 30,000 \$998 30,000 \$1,176 23,486 \$1,080 23,000 \$913 32,986 \$313 22,275 \$951	\$583 42,300 \$594 \$1,347 24,000 \$724 \$895 56,377 \$600 \$912 57,407 \$637 \$1,069 28,100 \$690 \$1,232 Not \$656 reported \$951 32,000 \$316 \$998 30,000 \$483 \$846 18,000 \$526 \$1,176 23,486 \$1,075 \$1,080 23,000 \$552 \$913 32,986 \$479 \$313 22,275 \$276 \$951 \$594	\$583	\$583	\$583

According to a study recently published by the Massachusetts Water Infrastructure Finance Commission (WIFC), the U.S. Environmental Protection Agency (EPA) has established a water and sewer affordability benchmark of 2 to 2.5 percent of median household income each for water and sewer service. However, the WIFC argues for a lower threshold: 1.25 percent each for water and sewer service. Arlington somewhat exceeds the WIFC affordability standard but falls well within that promoted by the EPA.

3. Health & Human Services

Arlington has a multi-purpose human services agency with programs supported both by tax revenue and user fees. The Department of Health and Human Services (HHS) includes the Board of Health, the Council on Aging (COA), COA Transportation, Veterans Services, and the Youth Counseling Center. It also provides professional support to several town boards, notably the Fair Housing Commission, the Disabilities Commission, Board of Health, Council on Aging, Human Rights Commission, and Board of Youth Services. The department employs fourteen people (FTE) and provides services on a contractual basis as well (Table X.10). In addition to these budgeted services, the HHS oversees a federally funded program known as the Arlington Youth Health and Safety Coalition, which employs three people.

Table X.10. Health & Human Services Staff (FTE) (FY2014)				
		Municipal Enterprises		

¹²⁶ Water Infrastructure Finance Commission, *Massachusetts's Water Infrastructure: Toward Financial Sustainability* (February 7, 2012), 99-100.

Position	Board of Health	Veterans Agent	Council on Aging (COA)	COA Transportation	Youth Counseling Center				
Managerial	1.0	0.0	1.0	0.0	1.0				
Clerical	0.8	0.0	0.9	0.5	1.5				
Professional/Technical	2.5	1.0	1.1	0.0	1.7				
Other	0.0	0.0	0.0	1.0	0.0				
Total	4.3	1.0	3.0	1.5	4.2				
Source: Town of Arlington,	Source: Town of Arlington, FY 2014 Budget.								

HHS programs are scattered among several community facilities, though all are located in the town's civic center. The main administrative offices are at 27 Maple Street in the former Central School building, which also houses the COA and the Arlington Senior Center. The Central School was rehabilitated from a school building to a senior/community center and leased office space in 1984. The existing space available to the COA is inadequate to serve the 4,420 Arlington seniors who seek service annually, according to correspondence from the COA Board of Directors. The COA is subject to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) privacy rules which are challenging for the COA to meet in shared workspaces. According to the town's Capital Planning Committee (CIC), the Central School is managed by the Arlington Redevelopment Board (ARB). The Youth Counseling Center occupies space in the Whittemore Robbins House, located behind the library. The Veterans Agent has an office at Town Hall.

4. Arlington Public Libraries

Arlington's public library system is a vital asset to the community, serving as a cultural hub and providing free and equal access to traditional and technological resources for all Arlington residents. The main library, Robbins Library, is located in the heart of Arlington, on Massachusetts Avenue. Built in 1892, Robbins Library was designed in the Italian Renaissance style, modeled on a palace in Rome, and finished extravagantly with marble, gold leaf, and custom furniture and fixtures. It is on the National Register of Historic Places. Arlington also operates a branch library on Massachusetts Avenue in East Arlington, the Edith M. Fox Library, which was built in 1965 to replace the original East Branch library on Massachusetts Avenue. Since 1994, the Fox Library has also served as an active, multipurpose community center.

Both libraries offer a variety of programming for children, teens, and adults. Examples of library programming include panels of local authors, summer reading program, teen book group, and story time. In addition, both facilities have public computer workstations, which are heavily used, and the library has a laptop lending service. Robbins Library also has display space for local organizations, special exhibits, study rooms, a local history room, and community rooms available for local group meetings. Rooms at the Robbins Library can be rented after hours for events. Arlington is part of the Minuteman Library Network of forty-three public and academic libraries, offering residents access to combined holdings of over six million items.

¹²⁷ May 15, 2014 letter to Director of Planning and Community Development form the COA Board.

¹²⁸ Arlington Public Libraries, History of the Library. See also, Part 6, Historic & Cultural Resources.

Operations. The Town Manager oversees the library operations, and the Library Board of Trustees administers library trust funds. The seven board members are appointed by the Town Manager for terms between one and three years. In addition to public funding, the Friends of Robbins Library and Friends of the Fox Branch Library provide financial support for programs and extended hours. The Anne A. Russell Children's Educational and Cultural Enrichment Fund, established in the 1990s, supports children's services. Further, the Arlington Libraries Foundation was started in 2013 to attract private donations to support the library's goals.

Robbins Library is open Monday through Friday year-round, with Saturday hours in September through June and Sunday afternoon hours in October through April. The Fox Library is open Tuesday through Friday, with Friday hours funded by the Friends of the Fox.

The library budget provides for a total of 31.3 FTE positions, but the libraries employ and approximately 20 part-time employees (Table X.11). Due to budget cuts, staffing has decreased since 2003. The increasing demand for library services has led to growth in responsibilities for staff members. Implementing new technologies, such as the radio frequency identification (RFID) system for tracking and inventory, can help the library meet its growing demands with current staff levels.

Table X.11. Library Staff (FY2014)	
Position	Total Staffing (FTE)
Managerial	1.0
Clerical	17.5
Professional/Technical	12.0
Custodial	0.8
Total	31.3
Source: Town of Arlington, FY 2014	Budget

Use. Arlington's libraries are heavily used. In FY2012, the libraries reported over 325,000 visits, a total circulation of 665,437, the highest in the library's history, and a 23 percent increase since 2002 (Table X.12). ¹²⁹ The library also reported that circulation of electronic content, including e-books, quadrupled between 2011 and 2012, to over 8,900. Circulation at the Fox Library has also increased significantly in recent years. The library director estimates that overdue fees and fines generate approximately \$40,000 annually, which goes to the Town's General Fund. ¹³⁰

Table X.12. Arlington Library Use: 2011-2012							
	FY2011	FY2012					
Circulation of materials	641,994	665,437					
Electronic Content circulation	2,213	8,902					
Children's programs	331	460					
Adult and young adult programs	85	119					
Visits to Robbins Library	321,898	325,550					

¹²⁹ Arlington Libraries, Department Report in Arlington's 2012 Annual Report.

¹³⁰ Ryan Livergood (Library Director), Department Survey, October 2013.

Uses of Meeting Rooms	997	1,053
Source: Arlington Libraries, Depar	tment Report	in Arlington's
2012 Annual Report.		

Facilities. Robbins Library had a major renovation with a new addition, in 1992. Since then, the way residents use the library has changed, shifting the focus away from print materials to computer-based resources. Demand has also increased significantly. The Library staff is currently developing a strategic plan that will include an observational study of how library patrons currently use the space. The study's results will influence future capital improvements for the facility. Robbins Library has also been proposed as a public cooling zone for the community during summer weekends, which would require additional funding to keep the library open for summer weekend hours. ¹³¹ The Fox Branch Library, which has not had a major renovation since 1969, also has capital needs. Both library buildings are managed by DPW.

5. Recreation

The Arlington Recreation Department is responsible for managing town recreation facilities: scheduling, developing and providing programs, collecting user fees, and so forth, and provides staff support to the Park and Recreation Commission (Table X.13). The department consists of two divisions: recreation, and the Ed Burns Arena/Sports Center. Arlington operates both as municipal enterprises, so all of the town's recreation services have to be self-supported from user fees. Together, the Recreation Department's programs and the ice rink generate approximately \$1.1 million per year in revenue. The Arlington Friends of Parks umbrella group, individual friends groups, and the numerous youth leagues help with routine maintenance and special projects, but the DPW is responsible for most of the maintenance of public recreation facilities.

Table X.13. Recreation Department Staff (FY2014)							
Position	Recreation	Ed Burns Arena					
Managerial	0.5	0.5					
Clerical	0.6	0.6					
Professional/Technical	1.0	1.0					
Custodial	0.0	1.0					
Total	2.1	3.1					
Source: Town of Arlington, FY 2014 Budget							

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Arlington's variety of opportunities for active recreation include Town-owned softball and baseball fields, football fields, multi-use fields for soccer, lacrosse, and other sports, public beach, basketball, bocce and tennis courts, and playgrounds. In these facilities, the Recreation Department sponsors seasonal offerings of sports, fitness, skating, and other programs for residents of all ages. The Recreation Department also manages 28 parks, playground and buildings throughout the Town including the following major facilities:

¹³¹ Ibid.

- **Veterans Memorial Sports Complex.** This major multi-sport complex includes the Ed Burns Arena and all the surrounding baseball, softball, little league and soccer fields that are used by local sports organizations.
- **Ed Burns Arena.** The state-owned Ed Burns Arena is also the Recreation Department's headquarters. It is leased by the Town and maintained by the DPW. Built in 1971, the facility originally offered a seasonal regulation-size skating rink. The Ed Burns Arena is now a year-round, multi-sport facility with an ice rink that operates during the fall and winter, and batting cages, indoor soccer programs, and summer camps in the spring and summer. It is used for a variety of special events and serves as home facility for the Arlington Hockey and Figure Skating Association and Arlington High and Arlington Catholic High School hockey teams. Table X.14 tracks annual usage statistics for the skating rink for the past five years. Public skating as an activity for both adults and children has grown significantly over the past several years, and the department offers a variety of instructional programs and special skating events.

Table X.14. Participation Statistics: Ve	eterans Memo	orial Skating	g Rink			
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	%
						Change
Ice Rental Hours	1,913	2,086	1,859	1,944	1,962	2.6%
Rec & Public Skate Hours	496	552	500	610	622	25.4%
Public Skate #'s-Adult	3,597	3824	3,979	4,484	4,258	18.4%
Public Skate Passes #'s-Adult	46	55	58	53	53	15.2%
Public Skate #'s-Child/Seniors	8,356	8597	7,846	8,317	8,411	0.7%
Public Skate Passes #'s-Child/Seniors	85	92	98	127	79	-7.1%
Skate Rentals	2,713	2597	2,762	3,235	2,959	9.1%
Skate Sharpening	932	962	982	1,112	848	-9.0%
Skate Sharpening Passes	N/A	11	20	15	9	N/A
Stick and Puck	280	452	557	518	657	134.6%
Source, Arlington Pogragion Donart	mont August	2012 N	فيمناء مالد د	to a stale to	actually own	- al la

Source: Arlington Recreation Department, August 2013. Note: the skating rink is actually owned by the Commonwealth and managed by the Arlington Recreation Department.

- **Robbins Farm Park.** The historic Robbins Farm was owned and farmed by the Robbins Family for more than three generations. In 1941, the Town acquired the land for a public park. Residents use the Robbins Farm fields, court, and playground year-round for active and passive recreation. The site includes a large playground, renovated in 2003, with unique hillside slides and a picnic area, a basketball court, baseball and soccer fields, and a hillside used for sledding in the winter. The Park and Recreation Commission prepared a master plan for Robbins Farm Park in the early 2000s.
- *Menotomy Rocks Park*. Several fields and trails are available for recreational use.
- McClennen Park.
- **Spy Pond Park.** Located on Spy Pond's north shoreline, this public park includes a playground, a public boat ramp, benches, and picnic tables. In 1999, the town commissioned a feasibility study for the park and shoreline. The plan recommended park improvements, environmental remediation, and site improvements to prevent soil erosion, improve drainage, remove invasive plant species, and deter geese. The Town's Vision 2020 Spy Pond Task Group and the Friends of Spy Pond Park participate in stewardship and planning efforts at the pond.

- **Reservoir Beach.** Located on Lowell Street in Arlington Heights, Reservoir Beach includes a filtered/chlorinated swimming area, bathhouse, vending machines and playground. The beach is supervised by certified lifeguards and other beach staff when open. Boston.com recently listed Reservoir Beach as one of the state's top ten swimming holes.¹³²
- Hurd Field. Located near Mill Brook and the Reservoir, Hurd Field offers two softball diamonds and a multi-use field. The Town received a U.S. Environmental Protection Agency (EPA) grant for a Porous Pavement Education Project at Hurd Field, which funded the installation of a new porous parking surface at the field. A rain garden was also installed in 2013 with support from the Town and the Mystic River Watershed Association.
- **Thorndike Field.** This recreation area is located next to Alewife at the end of the Minuteman Bikeway. In addition to sports fields, this is also the site of Arlington's dedicated off-leash recreation area (OLRA)

Fees collected from participants of youth sport leagues help to defray some of the capital and maintenance costs of the facilities. Arlington is also seeing growth in picnic permit requests at parks such as Menotomy Rocks, Robbins Farm, McClennen, Spy Pond, and Parallel Park. Furthermore, there has been increased use of Arlington's off-leash dog park at Thorndike Field, and a growing desire among residents for additional off-leash dog areas.¹³³

In addition to traditional sports, leisure, and fitness programming for all ages, the Recreation Department has opened an after-school program for children in grades K-5. Arlington Kid Care, a statelicensed childcare program, operates at the Gibbs School and serves all of the Town's elementary schools, as well as St. Agnes, a local parochial school.

Arlington has made a substantial investment in developing and maintaining recreation facilities. Between 2003 and 2013, many playing fields, courts, and playgrounds were updated with new surfaces, equipment, lights, and irrigation systems. The Town completed a \$2 million improvements project at the ice rink and upgraded several playgrounds. The Recreation Department's long-term capital plan anticipates many more improvements, including a new bath house at Reservoir Beach, field and diamond repairs at Hurd Field and Poets Corner, field and court renovations at Robbins Farm, Scannell Field, and Spy Pond, and new play structures at several town playgrounds.

All of Arlington's recreation facilities are well used and highly valued by local residents. Table X.15 reports summary-level program participation statistics for Recreation Department seasonal programs for the past five years and details activity at the Reservoir Beach.

Table X.15. Participation Statistics: Arlington Recreation Department Programs, 2008-2012									
FY 2008 FY 2009 FY 2010 FY 2011 F									
Program	Participants	by							
Season									
Summer			1,464	1,349	1,634	1,832	1,823		
Fall			913	10 <i>57</i>	920	1,110	1,263		
Winter			764	905	1,506	1,207	2,012		

¹³² Boston.com, "Massachusetts Swimming Holes".

 $<\!\!\!\text{http://www.boston.com/travel/explorene/massachusetts/galleries/swimming_holes?pg=6}\!\!>$

¹³³ Joseph Connelly, Arlington Recreation Director. Arlington Park and Recreation Commission, Capital Plan FY 2014-FY 2024.

Spring	544	732	812	<i>7</i> 72	<i>7</i> 86			
Reservoir Beach Tags Sold								
Adult Resident	464	352	455	437	437			
Child Resident	461	346	443	395	395			
Senior Citizen	67	51	70	71	<i>7</i> 1			
Non-Resident	31	13	13	24	24			
Resident Family	358	290	379	340	340			
Non Resident Family	46	17	34	27	27			
Resident Family Plus 1	90	59	70	64	64			
Non-Resident Family Plus 1	8	1	3	6	6			
Total	1,525	1,129	1,467	1,364	1,364			
Reservoir Beach Passes Sold								
Weekday Pass	3,500	3,051	4,254	3,050	3,344			
Weekend Pass	1,191	1,431	1,827	1,667	2,386			
Total	4,691	4,482	6,081	4 , 717	5,730			
Source: Arlington Recreation Department, August 2013.								

Other Recreation Facilities. The Minuteman Bikeway provides visual relief and recreational opportunities, and it also functions as a habitat corridor due to its proximity to open space, brooks, and water bodies. The path connects the wildlife habitat of Great Meadows in Lexington to the natural environment of Spy Pond. The Minuteman Bikeway was constructed on the former Boston and Maine Railroad right of way in 1992 after 20 years of planning and construction. The entire path is almost 11 miles long, beginning in Bedford Center, passing through Lexington and Arlington, and terminating in Cambridge near the Alewife MBTA Station. In addition to its popularity as a commuter bike route, the bikeway links historic sites, attractions, conservation areas, and parks in Arlington, Lexington, and Bedford. Arlington's portion of the bikeway is about three miles long and runs largely parallel to Massachusetts Avenue. In 2000, Arlington renamed its portion of the bikeway as the "Donald R. Marquis/Minuteman Bikeway" to honor a former town manager.

The Arlington Boys and Girls Club, located next to Spy Pond, is an important resource for children and teenagers. It has the only indoor swimming pool in town for classes and open swim times, and is home for the high school swim team. The club offers a large variety of classes and special events, including pre-school, after-school, and summer programs, and boating on Spy Pond. Fidelity House in Arlington Center is another private nonprofit community center that offers a wide variety of programs for children. Arlington also hosts any privately owned health clubs, fitness centers, and yoga studios that offer a variety of facilities and programs, primarily for adults.

6. Town Buildings

The Town of Arlington owns nearly fifty buildings. In addition to those most recognizable to the general public – Town Hall, the libraries, the schools, community safety, and public works – the Arlington Redevelopment Board manages several decommissioned facilities and leases the space to tenants, primarily local nonprofits such as the Cyrus Dallin Art Museum, Arlington Chamber of Commerce, Arlington Center for the Arts, and Arlington Community Media Inc., the local cable access station. An inventory prepared by the Capital Planning Committee (CPC) has been reproduced for Appendix 1.

7. Preventive Maintenance

In the past, Arlington had no town-wide policy for a coordinated approach to preventative maintenance of town facilities. Departmental coordination was lacking, and the town had multiple maintenance service contracts with vendors. To improve the efficiency and effectiveness of preventative maintenance, Arlington has created a Facilities Maintenance Planning Committee. Led by the assistant town manager, this committee is in its infancy in 2013, but it is working to develop a comprehensive preventative maintenance plan for all Town-owned public facilities.¹³⁴

UNIVERSAL ACCESS

Under the Americans with Disabilities Act (ADA), the Town is required to make all of its programs and buildings accessible to people with disabilities. The Massachusetts Architectural Access Board (MAAB) provides State guidelines for accessibility for new construction and renovations. The Town prepared an Americans with Disabilities Act (ADA) Self Evaluation and Transition Plan in 1992. According to Town staff, Arlington has brought many, though not all, of its buildings into compliance since 1992. The Massachusetts Office on Disabilities (MOD) has recognized Arlington for its efforts. The Town Hall, the Robbins Library, six of seven elementary schools, and the Ottoson Middle School reportedly comply with MAAB regulations. The Town has allocated CDBG funds for the past twelve years to install Wheel Chair Ramps and was one of the first towns to install Accessible Audible Pedestrian (AAP) signals. The Town is planning to update its Accessibility Self-Evaluation in 2015, to be followed by an updated ADA Transition Plan.

ENERGY

Arlington became a state-designated "Green Community" in 2010.¹³⁵ The Town has a part-time energy manager whose time is divided between Arlington and Bedford. The energy manager's duties include administering energy programs and policies, managing and applying for grants, implementing sustainability projects, and monitoring energy consumption in municipal facilities. Since 2010, Arlington has used Green Communities funds to install energy conservation measures at several Town-owned buildings. The improvements included new, high efficiency boilers; variable speed drives (which save energy by adjusting the output of mechanical equipment in response to the amount of power required); energy management systems; steam traps; and motion light sensors. Arlington has also converted all of its streetlights to LED lights (Appendix 2). Through these efforts, the Town has reduced its energy consumption by 22 percent since 2008. Potential future projects include installing occupancy sensors and updating light fixtures at DPW facilities and Robbins Library; and installing anti-idling devices in DPW cars and trucks to lower carbon emissions.

8. Arlington Public Schools

In the 2012-2013 school year, total K-12 enrollment in the Arlington Public Schools exceeded 4,900 students. Approximately half of these students are in the elementary schools. Enrollment has grown

¹³⁴ Andrew Flanagan, Assistant Town Manager, interview, October 9, 2013.

¹³⁵ "Green Communities" is a program of the Mass. Executive Office of Energy and Environmental Affairs (EOEEA). It provides funding to eligible cities and towns for energy efficiency and renewable energy projects. To qualify for designation, a community must institute certain energy policies and provide streamlined zoning and other regulations for renewable energy development.

steadily for the past twenty years and is expected to continue to increase over the next five years (Insert Table X.X).

In addition to providing its own public schools, Arlington belongs to the Minuteman Regional Vocational Technical School District. Located in Lexington, Minuteman Regional High School serves sixteen towns and more than 700 students, including 125 high school students and 14 post-graduate students from Arlington in 2012. Minuteman Regional is in the Massachusetts School Building Authority's (MSBA) Vocational School Repair and Renew pipeline for renovations and an addition.

The Arlington Public Schools operates nine school facilities: seven elementary schools, one middle school, and one high school (Table X.16). Menotomy Preschool is a nonprofit preschool located in Arlington High School and run by the childhood special education department at AHS, offering work-related training experience for high school students studying early childhood education. The elementary schools serve grades kindergarten through five. A redistricting plan for elementary schools went into effect for the 2013-2014 school year in an effort to address enrollment imbalances.

Table 9.16. Arlington School Facilities								
School	Description							
Bishop Elementary 25 Columbia Road	Grades: kindergarten to 5 51,367 sq. ft., built in 1950; renovated in 2002 Softball/little league diamond, basketball court, multipurpose field, playground, parking lot							
Brackett Elementary 66 Eastern Avenue	Grades: kindergarten to 5 57,670 sq. ft., originally built in 1930; rebuilt in 2000 Basketball court, multipurpose field, playground, across street from Robbins Farm Park (baseball diamond, multipurpose field, playground)							
Dallin Elementary 185 Florence Avenue	Grades: kindergarten to 5 63,578? sq. ft., originally built in 1956; rebuilt in 2005 Softball/little league diamond, basketball courts, multipurpose field, Playground							
Hardy Elementary 52 Lake Street	Grades: kindergarten to 5 55,107 sq. ft., built in 1926; renovated in 2001 Basketball courts, playground, parking lot available after 3pm							
Peirce Elementary 85 Park Avenue Extension	Grades: kindergarten to 5 55,107 sq. ft., originally built in 1926; rebuilt in 2004 Basketball courts, playground, parking lot available after 3pm							
Stratton Elementary 180 Mountain Avenue	Grades: kindergarten to 5 63,300 sq. ft., built in 1962; renovated in 1968, 2011 Baseball diamond, basketball courts, multipurpose field, playground, parking lot available after 3pm							
Thompson Elementary 60 North Union Street	Grades: kindergarten to 5 59,000 sq. ft., originally built in 1956; rebuilt in 2013 Basketball court, softball/little league diamond, playground, baseball diamond, multipurpose field, picnic tables, seasonal spray pool, parking lot							
Ottoson Middle School 63 Acton Street	Grades: 6-8 154,380 sq. ft., built in 1920; renovated in 1998 Softball/little league diamond, practice area, parking							
Arlington High School 869 Massachusetts Avenue	Grades: 9-12							

	394,106 sq. ft., built 1914; addition 1964 and renovated in 1980 synthetic field, track, basketball courts, baseball diamond, softball/diamond, multipurpose field
Source: Arlington Capital Planning	Committee, Report to Town Meeting, April 2013; Arlington
Recreation Department	commission to to minimize the property of the second

The School Department has identified a need for a long-term capital maintenance plan and expanded technology in all schools. Arlington is near the end of a multi-year process of renovating or replacing all seven elementary schools. To date, six of these schools have been completed. The most recent project involved the Thompson School, at \$20 million. The new building opened in September 2013. The Stratton School is next. In December 2013, the School Department obtained a "green" capital needs assessment and replacement reserve analysis of the Stratton School and established a school building committee. The committee has begun the process of determining what needs to be done to bring the Stratton to parity with the other elementary schools. According to the School Department, the goal is to generate estimated budgets to submit to the next Capital Budget cycle in September, for funding in FY2016.

10. Town Finances

When asked to identify and rank Arlington's current weaknesses and the conditions that threaten its future, participants at three public meetings for this master plan spoke almost in unison: lack of commercial and industrial tax base, and Arlington's increasing dependence on residential taxpayers to fund the cost of local government. Most of the sixty-two residents who attended individual and small-group interviews made similar comments. Some characterized Arlington's dilemma with words heard at all levels of government in the U.S. today: "structural deficit." In fact, residential property values have driven Arlington's tax base for many years. Since the mid-1980s, the tax base has gradually changed from 90 percent residential to almost 94 percent in 2013. In the intervening years (1986-2013), a combination of very little new growth, state aid fluctuations, three recessions, substantial increases in the cost of employee benefits such as pensions and health insurance and changes in school spending requirements have also contributed to making it hard for built-out suburbs like Arlington to pay for the services residents want to receive.

Arlington tracks financial indicators for thirteen comparison towns (Table 9.17): communities with similar populations, wealth, land area, road miles, budgets, and so forth. While Arlington relies more on residential property taxes than most towns in the comparison group, its tax burden is relatively low. Arlington's average tax bill rose at a faster rate than the state median for the past two years, presumably due to a Proposition 2 ½ override vote in 2011. However, even with accelerated tax bill growth, Arlington's tax levy per capita remained comfortably below the midpoint of its comparison area, and its average tax bill as a percentage of median household income is low for the comparison area, too. Arlington also spends less per capita than similar towns. The available demographic, revenue, and expenditure data for Arlington suggest that lack of revenue growth, not excessive spending, lies at the root of what residents call the Town's structural deficit. As the Town's FY 2014 Financial Plan suggests,

Arlington is left "with only two choices: significant budget cuts resulting in service reductions or Proposition 2 ½ general overrides." ¹³⁶

Table X.17. Find	Table X.17. Financial Comparison Data									
Community	Census 2010	Population Density	2010 Dept. of Revenue	2012 EQV Per Capita	2011 Expenditures	2013 Levy Per Capita				
	Population	Sq. Mi.	(DOR) Income Per Capita		Per Capita					
ARLINGTON	42,844	8,271	\$43,414	\$1 <i>75,</i> 702	\$2,029	\$2,288				
Belmont	24,729	5,307	\$65,808	\$226,958	\$2,678	\$2,914				
Brookline	58,732	8,650	\$58,434	\$276,924	\$2,976	\$2,897				
Medford	56,173	6,901	\$29,198	\$126,373	\$1,815	\$1,601				
Melrose	26,983	5,753	\$37,402	\$138,81 <i>7</i>	\$2,435	\$1 <i>,77</i> 9				
Milton	27,003	2,071	\$51,918	\$169,647	\$2,372	\$2,406				
Natick	33,006	2,189	\$46,091	\$199,265	\$2,891	\$2,706				
Needham	28,886	2,291	\$80,902	\$281,849	\$3,533	\$3,477				
North Andover	28,352	1,064	\$47,602	\$156,821	\$2,293	\$2,167				
Reading	24,747	2,492	\$42,071	\$159,675	\$2,857	\$2,226				
Stoneham	21,437	3,486	\$34,028	\$145,507	\$2,442	\$1,907				
Watertown	31,915	7,765	\$35,554	\$169,115	\$2,801	\$2,456				
Winchester	21,374	3,539	\$87,306	\$269,213	\$3,739	\$3,243				
Sources: FY 201	4 Budget and	Financial Plan	; Mass. Departi	ment of Revenue	e, Municipal Data Ba	ınk.				

To preserve basic services and manage the rate of spending growth, Arlington approved an override of Proposition 2 ½ in 2011 with the understanding that the new revenues would maintain acceptable levels of service through FY 2014. Town leaders made several commitments for making the money last at least three years, and so far all of those commitments have been met. Recent changes in state law made it easier for Arlington and other communities to reduce expenditures for employee health insurance, and this has helped to stretch the benefits of the 2011 general override. ¹³⁷

C. ISSUES AND OPPORTUNITIES

1. Arlington Public Schools

CAPITAL IMPROVEMENTS

While the Stratton School is next in line for capital improvements, the timing is complicated because Arlington High School – last upgraded more than 30 years ago – has major capital needs as well. Building conditions at Arlington High School led to a recent accreditation warning from the New England Association of Schools and Colleges (NEASC). A needs assessment is being conducted to help the School Department plan for renovation or reconstruction of this facility in the next five years. The School Department plans to file a Statement of Interest with the Massachusetts School Building Authority (MSBA) by the deadline in April 2014. A Statement of Interest is the first step in a long process of being partially (if not substantially) funded by the state. The timing of the project is

¹³⁶ FY 2014 Budget and Financial Plan, 15.

¹³⁷ Ibid, 3-4. See also, Finance Committee Report to 2013 Annual Town Meeting, 4.

uncertain due to significant competition statewide for limited building funds. It is very unlikely that Arlington could afford to rebuild the High School without state funding. If Arlington High School is selected to proceed by the MSBA, the School Committee will have to approach Town Meeting for funding to conduct a feasibility study. Moving beyond the feasibility study stage to design and construction funding will require a Proposition 2 12/ debt exclusion vote.

K-12 ENROLLMENTS

Few trends attest to the demographic changes in Arlington more persuasively than what has happened with K-12 enrollments. When work began on this master plan in 2013, the school department's enrollment projections anticipated a pattern of gradual decline – as has happened in many suburban schools throughout Middlesex County. By the time the master plan was in development, however, a new enrollment forecast called for steady growth in Arlington's school-age population. The good news for Arlington is that families want to live in the community. The down side is that Arlington will find it even more challenging to meet capital and operating needs on the municipal side of town government if school enrollments increase as currently predicted.

2. Department of Public Works

Aside from a 29 percent decrease in DPW employees between 2003 and 2013 (measured in FTE), ¹³⁸ the DPW operates with some constraints that are unique to a built-out community. For example, Arlington has no designated storage areas for snow and tree removal, thus the DPW has to work with the owners of vacant or underused sites such as parking lots in order to find places to dump snow (or trees) during or after a storm. According to the DPW director, the Town has had to move snow to some of the public parks in past years; doing so, however, runs the risk of costly damage to these facilities. A regional solution may be explored, though concerns about contamination and the added problem of longer operational run times makes an out-of-town snow disposal site difficult.

A second challenge for both the DPW and the Cemetery Commission, is that Arlington is running out of cemetery space. The Mount Pleasant Cemetery is the only public cemetery facility in Arlington that still has room for additional burials, but its estimated capacity is only about another five years.

Arlington residents clearly value the tree canopy that defines most neighborhood streets. The abundance of mature trees found throughout Arlington has an indelible impact on the town's visual character and environmental quality. Arlington has approximately 19,000 public trees, all under the responsibility of the DPW Natural Resources Division. Due to the number of severe storm events that occurred in 2012 – the July "microburst" and Tropical Storm Sandy in October – coupled with staff shortages, the DPW has a current backlog of about 400 tree repair/removal requests, or roughly one year of catch-up work. The Natural Resources Division also maintains thirty parks, twenty-six playgrounds, nineteen athletic fields, several parcels of open space, and twenty-one traffic islands. 139

Private ways present additional public works challenges in Arlington. The Town has approximately twenty-three lane miles of private ways. Mainly for public safety reasons, Arlington plows all roads and provides curbside trash pickup on private as well as public roads. However, regular road maintenance is limited to public streets under the Town's jurisdiction. According to the DPW, the

¹³⁸ FY 2014 Budget and Financial Plan, 58.

¹³⁹ Public Works Department, 2012 Annual Report.

private ways serving many houses on small lots are in relatively good condition, but the short private ways in lower-density parts of town need work. The DPW estimates that approximately one-third of the private ways in Arlington are in serious disrepair posing a hazard for pedestrians and vehicular access to abutting properties.

D. RECOMMENDATIONS

Perform a space needs analysis for all Town-owned buildings.

The Town of Arlington owns and occupies many buildings across town. A quantitative and qualitative analysis of all these facilities is needed to prevent the underutilization of space and misappropriation of resources between departments. This analysis should also identify potential lack of space for current or projected use, and poor arrangement qualities that might affect the operations of a department. In addition to looking at the physical layout of space, an assessment of the environmental qualities, such as daylight and the availability of fresh air, should be undertaken.

2) Assess the benefits and drawbacks of the Town taking on maintenance of private ways.

The Town of Arlington operates trash and snow removal service on private ways, as a preventative measure for public safety. However, property owners or developers are responsible for maintenance of over twenty-three lane miles of private ways in Arlington. Many of these roads are in deteriorated condition, and continue to fall further into disrepair. The possibility of the Town eventually taking maintenance of some private ways in a worsened state might be worth consideration for assuming responsibility for these roads sooner. The costs and manpower involved in adding additional mileage to the purview of the DPW, however, is at present, a major drawback.

3) Establish a regular process for evaluating the continued need to retain Town-owned properties and for disposing of properties that no longer serve public purposes.

As part of its asset management responsibilities, Arlington should create a procedure to evaluate Town-owned properties as potential candidates for disposition, and policies to guide how proceeds from the sale of Town property will be used.

4) Improve the management and maintenance of town facilities and infrastructure.

- Establish a Planned Preventive Maintenance (PPM) program.
- Create a PPM for all Town-owned facilities, including schools, recreational facilities, parks and playgrounds.
- Fund a full-time facilities manager position within the Department of Public Works (DPW); transfer the maintenance budget and building maintenance personnel from the School Department to DPW. This position would benefit Arlington by having a centralized, professional expert overseeing all aspects of facilities management: custodial care, routine inspection, routine maintenance, repair and improvement projects, improvements to make facilities accessible to people with disabilities, energy use, budgeting, and planning. In addition to preparing a periodic

assessment of and budget for these needs, the responsibilities of a facilities manager would include maintaining an inventory of the services provided in each facility, including town services and activities conducted by private groups that use town facilities..

5) Study and develop an actionable plan for addressing Arlington's long-term cemetery needs.





10. IMPLEMENTATION



IMPLEMENTATION PROGRAM

Action	Elements(s)	Lead Entity	Support	Phase	Resources Needed
Recodify and update the Zoning Bylaw.	LU	ARB		1	Consultant
Reduce the number of uses that require a special	LU	ARB		1	Consultant
permit; replace special permits with a system of uses					
by right subject to performance standards.					
Provide redevelopment incentives in all or selected	LU, ED	ARB	BOS	1	Consultant
portions of the business districts on Massachusetts					
Avenue, Broadway, and Medford Street (incentives					
may include more than zoning)					
Amend the Zoning Bylaw to clarify that mixed-use	LU, ED, H	ARB	JAB	1	Consultant
development is permitted along sections of					
Massachusetts Avenue.					
Amend the Zoning Bylaw to increase density in the	LU, ED	ARB		1	Consultant
business districts.					
Reorganize and consolidate the business zoning	LU, ED	ARB		1	Consultant
districts on Massachusetts Avenue.					
Fund a full-time facilities manager position within the	PS	TM	BOS, APS,	1	New Staff
Department of Public Works (DPW); transfer the			DPW		
maintenance budget and building maintenance					
personnel from the School Department to DPW.					
Amend the Zoning Bylaw to allow accessory	LU, H	ARB		1	Consultant
apartments.					
Amend the Zoning Bylaw to create more	LÚ, H	ARB		1	Consultant
opportunities for multi-family conversions.					
Amend the Zoning Bylaw to add bicycle parking and	T, H, ED	ARB	BAC	1	Consultant
access in the Town's off-street parking regulations					
and in adjacent to business districts and multifamily					
developments					

Acronyms: LU – land use; H – housing and neighborhood development; ED – economic development; OS – open space and natural resources; PS – public services and facilities; T – transportation; ARB – Arlington Redevelopment Board; PCD – Dept. of Planning and Community Development; DPW – Public Works; CC – Conservation Commission; TAC – Transportation Advisory Committee; BAC = Bicycle Advisory Committee; CPC – Capital Planning Committee; A-TED – Arlington Tourism & Economic Development Committee; OSC – Open Space Committee; TM – Town Manager; HC – Historical Commission; PRC – Park & Recreation Commission; APS – Arlington Public Schools.

Action	Elements(s)	Lead Entity	Support	Phase	Resources Needed
Implement the recommendations in the 2014 Arlington Center parking study; monitor parking trends.	T, PS	BOS		1	TBD
Work with DHCD and the Town's state representative and senator to determine Arlington's status under the Chapter 40B 1.5 percent land area rule	H, LU	BOS	PCD	1	Existing Staff
Create a comprehensive plan for the Mill Brook environmental corridor,	LU, OS, ED, H	ARB	CC,	1	Consulting Team
Establish an Economic Development Commission or Council of Economic Advisors with representatives from the business community, tourism groups, and community organizations to work with the Town Manager and Economic Development Coordinator on economic policy and priorities. ¹	ED, PS	TM	PCD	1	Existing Staff, New Volunteers
Complete a comprehensive historic resources inventory.	HR	HC		1	Consultant
Develop a plan for universal access to recreation facilities, parks, and trails.	PS, OS	DPW, PRC	DC	1	Existing Staff & Volunteers; Consultant
Address ADA requirements for the Minuteman Bikeway, improved lighting, signalization at street crossings, including raised crossings for the bikeway to give more visibility to pedestrians and bicyclists, and speed control to drivers.	T, OS, PS	DPW	DC, BAC	1	Consultant
Adopt the Community Preservation Act.	OS, H, CR	BOS	HC, OS, AHC	1	

¹ Cells shaded in yellow were inadvertently omitted from the Draft Master Plan report.

Action	Elements(s)	Lead Entity	Support	Phase	Resources Needed
Conduct a parking study in East Arlington	T, PS, ED	TAC		1	Consultant
neighborhood; identify deficiency (if any) and					
develop parking management strategies.					
Review and strengthen demolition delay bylaw.	CR, LU	HC, ARB		1	Existing
					Volunteers &
					Staff
Amend the Zoning Bylaw to incorporate historic	LU, CR	ARB		1	Consultant
preservation into the development review process,					
e.g., by ensuring that the Historical Commission					
always receives site plan and EDR plans for review					
Install a pedestrian hybrid signal at the intersection of	T	DPW	TAC	1	TBD
Massachusetts Avenue/Water Street to allow for safe					
pedestrian crossings across Massachusetts Avenue.					
Seek Certified Local Government (CLG) designation	CR	HC	BOS	1	Existing Staff &
for the Arlington Historical Commission.					Volunteers
Establish a Planned Preventive Maintenance (PPM)	PS	TM	DPW, BMC	1	Consultant,
program.					Existing and
					New Staff
Study and develop an actionable plan for addressing	PS	DPW	BOS	1	TBD
Arlington's long-term cemetery needs.					
Identify options for and resolve the Town's snow	PS	DPW	BOS	2	Consultant
storage needs.					
Evaluate aging-in-place needs.	PS, H	CoA, HD		2	Consultant &
					Existing Staff
Allow on-street parking in the vicinity of new multi-	H, PS, T	BOS	TAC	2	TBD
unit conversions or mixed-use developments and					
lower or remove the requirement for minimum					
parking.					

Action	Elements(s)	Lead Entity	Support	Phase	Resources Needed
Amend the Zoning Bylaw to allow Transfer of Development Rights (TDR), identifying both sending areas and receiving areas.	LU, H, OS	ARB	CC, PCD	2	Consultants
Work with the Arlington Land Trust or establish a community land trust specifically designed to function as a TDR land bank.	LU, H, OS	PCD	CC, OSC	2	Consultant, Existing Staff
Amend the Zoning Bylaw to provide for infill development on nonconforming lots.	LU, H	ARB		2	Consultant
Pursue strategies to protect vacant land in the southeast corner of Arlington near Alewife Station and Thorndike Field.	LU, OS	ARB	CC, OS	2	Consultant
Develop long-term maintenance plans for town- owned historic buildings, structures, parks, cemeteries, and monuments	CR, PS	DPW	HC, BOS, PCD	2	Consultant
Improve unsafe pedestrian crossings with signals, signage, or road design modifications, notably at the intersections of Broadway/Warren and Warren Street between River Street and Broadway, and along the Mystic Valley Parkway.	T	DPW	TAC	2	Consultant, construction spending
Determine strategies to curb non-resident commuters who park on residential roadways.	T	DPW, PD		2	TBD
Establish asset management policies and institute a regular process for evaluating need to retain Townowned properties; institute surplus property policy.	PS	TM	BOS, CPC	2	Existing Staff & Volunteers
Provide safe connections between the Minuteman Bikeway and the 3 commercial centers. Identify/equip corridors with wayfinding signage to direct path users to and from the path, including a map directory of local businesses along the path.	T, OS	DPW	ВАС	2	Consultant, construction spending

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Action	Elements(s)	Lead Entity	Support	Phase	Resources Needed
Promote carpooling for children who are not bussed to school.	T, PS	APS		2	TBD
Evaluate merits/drawbacks of assuming more responsible for maintenance of private streets.	T, PS	DPW	CPC	2	TBD
Work with MassDOT to improve the efficiency of Massachusetts Avenue/Route 16 signal in Cambridge.	Т	DPW	TAC	2	TBD
Include bicycle friendly design and technology in new road projects.	Т	DPW	BAC, TAC	2	TBD
Work with the MBTA to reduce bus bunching and improve the efficiency of bus service.	T	TAC		2	TBD
Create an Affordable Housing Plan (Housing Production Plan) and submit to DHCD for approval under Chapter 40B.	H, LU	PCD		2	Existing Staff (Possibly Consultant)
Establish a Housing Partnership Committee.	H, PS	BOS		2	Existing Staff
Create commercial district design guidelines and cross-reference them in the Zoning Bylaw.	LU, ED	ARB		2	Consultant
Update Industrial district zoning to reflect current market needs.	ED, LU	ARB	ED	2	Consultant
Assess the benefits and drawbacks of the Town taking on maintenance of private ways.	PS	DPW		2	Existing Staff
Promote new co-working centers to attract small business ventures, innovative companies, entrepreneurs, and currently home-based businesses.	ED	ED		2	TBD
Develop a historic and archaeological resources survey; identify and prioritize outstanding inventory needs	CR	НС		2	Consultant
Consider designating single-building historic districts	CR	НС		2	Consultant, Existing Staff
Create a bylaw to control / remove invasive plants and species.	OS	CC		2	Technical Assistance

Action	Elements(s)	Lead Entity	Support	Phase	Resources Needed
Place preservation restrictions on town-owned historic properties	CR, PS	HC, BOS		2	TBD
Review the extension of the regional "Hubway" bikeshare program into Arlington.	Т	BOS	BAC	3	TBD
Add bicycle lanes on Massachusetts Avenue from Swan Place to Pond Lane to connect lanes created by the Massachusetts Avenue Rebuild Project and the Arlington Safe Travel Project.	Т	BOS, DPW	BAC, TAC	3	TBD
Consider designating Architectural Preservation Districts (APD) or Neighborhood Conservation Districts (NCD),	CR, LU, H	ARB, HC		3	Consultant
Provide contra-flow bicycle lanes on high-demand one-way streets, such as Swan Street westbound, Foster Street northbound, and River Street northbound.	T	BOS, DPW	BAC, TAC	3	TBD
Initiate a coordinated study to further extend the Green Line Extension into West Medford, East Arlington, or Arlington Center.	T, ED	BOS	ARB, TAC	3	TBD
Implement the recommendations contained in the Koff & Associates Commercial Center Revitalization report.	ED, LU, PS	Multiple ²		Ongoing	TBD
Expand community-wide preservation advocacy and education	CR, PS	НС	A-TED, IT	Ongoing	Existing Volunteers
Integrate master plan implementation within the Board of Selectmen/Town Manager annual goal-setting process.	PS	TM	BOS	Ongoing	Existing Staff

² Note to MPAC: This item involves several recommendations and not all of them will fall under the same lead entity. We will break them down in the implementation narrative so it's clear who should be doing what, but it didn't make sense to try and accommodate that level of detail here.

Action	Elements(s)	Lead Entity	Support	Phase	Resources Needed
Work with Vision 2020 or another town committee to assist with an annual process of evaluating master plan implementation and identifying potential amendments to the plan, as appropriate.	PS	Vision 2020	BOS, ARB	Ongoing	Existing Volunteers
Maintain timely updates of the Open Space and Recreation Plan.	OS, PS	OSC		Ongoing	Existing Volunteers & Staff
Initiate a complete, safe sidewalks plan town-wide, in coordination with the Safe Routes to School (SRTS) program	T, PS	DPW		Ongoing	TBD
Continue to support and expand the safe routes to school program to encourage more biking and walking to school.	T	APS		Ongoing	TBD
Install wayfinding signage for public parking lots, including maps and parking limits. Post regulations and policies on Town's website.	T	PCD		Ongoing	TBD
Improve intersections to improve traffic flow in the two-lane section of Massachusetts Avenue west of Arlington Center.	T	DPW	TAC	Ongoing	TBD
Address the quality and condition of aging housing stock, including financial assistance programs for homeowners and landlords.	Н	PCD		Ongoing	CDBG, HOME
Promote and support Arlington's theatres	ED	BOS	A-TED	Ongoing	
Address street tree problems, including the replacement of trees lost due to storms and the failed survival of many newly planted trees. Coordinate tree care between the Town and property owners.	PS	DPW		Ongoing	
Continue to include sidewalk maintenance in the Department of Public Works' pavement management system.	PS	DPW		Ongoing	TBD

Action	Elements(s)	Lead Entity	Support	Phase	Resources Needed
Review the continued need for town boards and	PS	BOS		Ongoing	Existing Staff
committees and disband committees that are no					
longer needed.					



11. APPENDIX



12. BIBLIOGRAPHY

